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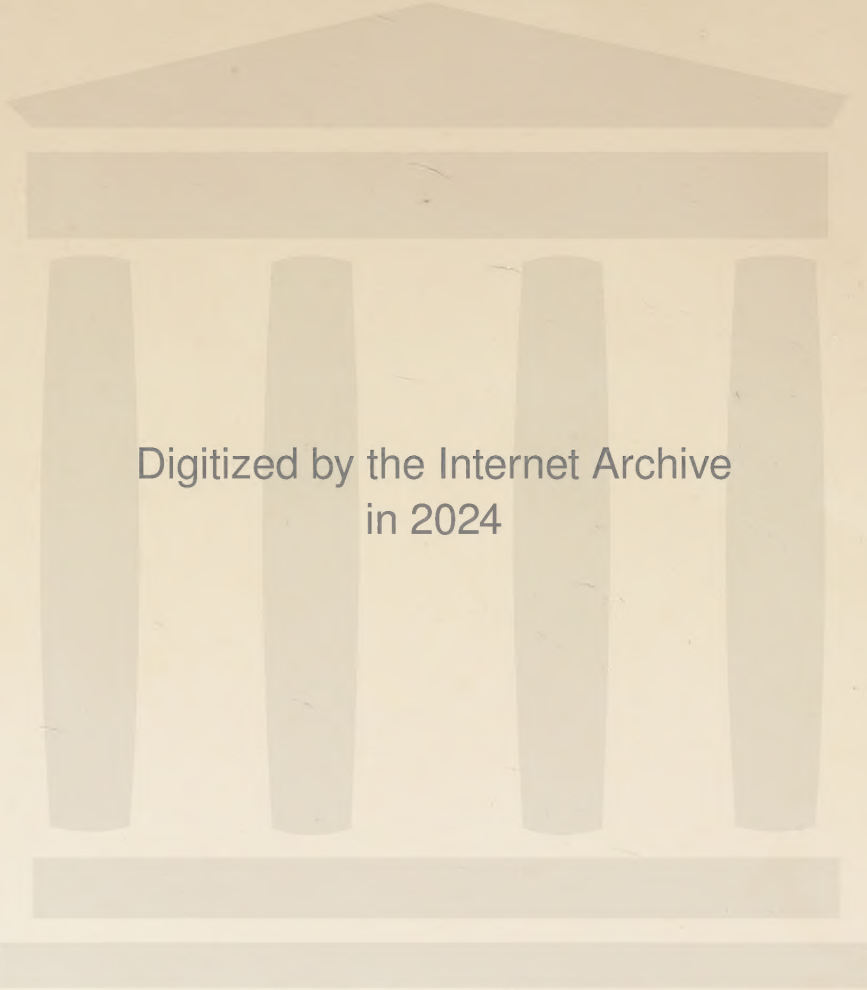
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BIRD WATCHING
ON SCOLT HEAD



AFTER THE DAY'S WORK

BIRD WATCHING ON SCOLT HEAD

By
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FOREWORD

THIS book is merely an account of my two seasons bird watching at Scolt Head. It does not attempt to continue the story after 1925. Those who wish to follow up my records should consult the *Transactions of the Norfolk and Norwich Naturalists' Society*.

My grateful thanks are due to those friends who helped me in my work from time to time—Mr. and Mrs. T. A. Coward, Mrs. C. D. Murton, Mrs. T. E. Hodgkin, Mrs. Franklin, Miss Judith Ferrier and Miss Margaret Wenn. Without their aid I could not have carried on.

My thanks are also due to the editors of *The Times* and the *Transactions of the Norfolk and Norwich Naturalists' Society* for permission to include the notes supplied to them in this book, and to the ornithologists whose names appear in the list of illustrations, for the use of their photographs to supplement my own.

THIS BOOK IS
DEDICATED
TO
DR. B. G. SUMPTER
IN ACKNOWLEDGMENT OF MANY KINDNESSES

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ON SCOLT HEAD

SCOLT HEAD

AFTER a meeting of the Norfolk and Norwich Naturalists' Society in December, 1923, the Secretary, Dr. Sidney Long, said to me: 'I cannot find a watcher for Scolt Head.' In a fit of recklessness I replied, 'Why not have me?' In a half-joking way we began to discuss the matter, and after a prolonged chat while the museum officials were evidently getting impatient and beginning to turn out the lights, the conversation had assumed such serious proportions that a definite answer, yes or no, was to be placed before the next committee meeting. The post was to be entirely a voluntary one, my only stipulation being that instead of paying me, a man should be paid to come to and fro daily with letters and supplies. It was never suggested that the appointment should be a permanent one. I was only a stop-gap until a suitable man could be found. My decision was made in three days. The committee appointed me as their official watcher on February 15th, and my duties began on April 1st, 1924. Most of my friends thought this a very suitable day! The committee was very generous to me. I cannot lay too much stress on this point, because of misunderstandings which arose in some quarters when visitors saw that it was too big a task for one person to carry out satisfactorily. It was essentially a pioneer job, and its difficulties could be tackled only as they cropped up. It is one thing to acquire these beauty spots, such as Scolt Head, Blakeney Point, and many others; it is another thing to maintain them for the nation. The public for whose benefit they are acquired, does not grasp this fact. Money, and yet more money, is needed. But for

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the indefatigable work of the honorary secretary, Dr. Long, many of these nature reserves would not be laid at the feet of the public to-day. They would have shared the fate of all the one-time lovely coastal villages of Norfolk. But now, if any one wishes 'to stand and stare,' there is a glorious stretch of isolated seashore where you can lie in the bosom of the great Earth Mother and absorb her vitality as Antæus of old did every time he came in contact with her. And, thank Heaven, there are still numbers of people who have not given the sordid boon of their hearts away. Go to Scolt Head, Blakeney Point, and Cley, and you can still

"Have sight of Proteus rising from the sea
Or hear old Triton blow his wreathed horn."

But do not disturb the birds in their sanctuaries. There should be no need of sanctuaries for birds in this land of bird and animal lovers. The places which these summer residents seek for their nurseries should need no protection. But they do. The acquisitive collector who must adorn his cabinet with their spoils, the stupid yokel who stamps on eggs and young for the mere pleasure of destroying them, the even thoughtless lover of nature who elects to picnic amongst the nesting birds—all these tiresome people have to be eliminated or moved on, and money is needed to do it.

I, as the first watcher on Scolt Head, was given a free hand with the furnishing. On February 27th some of us met and unpacked the big cases of household plenishing. Snow lay on the hills and marshes, an unusual sight on saltings and one which gave a touch of even greater isolation to the island and accentuated the bastion-like end of the actual Head.

My position as watcher was after all nothing to make a fuss about, and certainly did not warrant the misguided enthusiasm of the press.



THE HUT LOOKING SOUTH



THE SALTINGS, LOW TIDE

I was never lonely and seldom alone. Ten days was the longest consecutive period of solitude. From the beginning it was obvious to me that I could not look after twelve hundred acres and do all I undertook to do unaided. What really gave rise to the myth of 'The Loneliest Woman in England' was due entirely to the vivid imagination of the first newspaper man who came hot on my trail from crowded Fleet Street to the solitude of Hickling Broad. He arrived somewhere about 11 p.m. on Saturday night (March 31st, 1924) and insisted on interviewing me in my cabin boat. It was a rough night and this intrepid reporter had a wet and windy crossing and a very morose reception from me and my dogs. The stormy night and the darkness probably fired his imagination and by adding a hundred per cent. to the circumstances under which he found me, he painted the first picture of the lonely watcher. Others followed in a bewildering stream till in desperation I said to the ferry-man, 'Drown the next.' He smiled and said, 'All right, Miss.' Anyway the stream ceased for the time being. One who seemed vexed at finding others of his craft with me, besides several personal friends who came to help with my packing, only stayed five minutes. He exclaimed crossly, 'Call yourself lonely, you're one of a crowd, there's many a woman in London lonelier than you.' To whom I replied, 'I have never said I was lonely, it's the invention of your trade.' When the motor-lorry conveying me and my mate, my two terriers and three nine-day-old puppies reached Brancaster, we found three more reporters awaiting us. By that time I was hardened and told them how I hated them, but they were forgiving and willing to be made use of as carriers. We missed the high tide, so all the heavy stuff had to be carried nearly a quarter of a mile across the saltings. They were cheerful and willing helpers and entered into the fun of the journey. It was a beautiful April day and everything wore its most becoming smile.

BIRD WATCHING ON SCOLT HEAD

The next day my mate had to return home, so I was alone and busy 'assembling' the oil cooking stove and finding places for my luggage. The crockery failed to greet me and did not turn up for nearly a month. We borrowed a few plates and mugs and collected oyster shells which were used as extra plates and soap-dishes. One of those oyster shells is in use as a soap-dish to this day. It is wonderful what a stretch of seashore can produce in the way of necessities—even to smoke-pearl buttons. That first day of solitude has bitten deep into my memory ; it filled me with wild joy to think that for months I should possess the island with all its mystery and loveliness. Every isolated spot has its own presiding spirit, and, however much one might at times kick against the pricks, the spirit which brooded over Scolt Head was essentially one of rest and peace. Not an indolent peace, but rather that of rest in motion.

I should indeed have been very lonely without my dogs. When I first landed I carried in my haversack three nine-day-old black-and-tan terrier puppies, while two of the newspaper men brought over the parents in their kennel. There were a few heart-burnings over my dogs, but after all we needed something to play with and there was ample room for them, and later on plenty of work. All five were taught to scour the marrams and hunt the acres and acres of *suaeda* bushes where migrants skulked. But for them we should never have flushed certain birds. The two older dogs always accompanied me to the Ternery and kept watch if I slept. They soon learnt that commotion amongst the birds might mean unlawful disturbance, and they often spotted a stray prowling dog or distant visitor before I did. The foolish restlessness of the Terns annoyed them. They would spring up from their sun-baked hollow, erect, alert, and if there was no apparent cause for the disturbance flopped down again with a grunt, as much as to say, 'What fools these birds are making all that fuss about nothing.'

One dog I lost for nine days ; presumably he was down a rabbit-hole. He ultimately returned at dawn, thin and weak, with a bit nicked off the cornea of one eye and consequently blind for a time. He completely recovered eventually.

The island with its long backbone of sand-hills flanked by the sea on the north, and wide salt marshes on the south, possesses beauty both of form and colour. One never tired of watching the wind tossing the tawny manes of the marram grass, and driving the great galleon-like clouds across the sky, or chasing their shadows over the wet sand. The gradual changes which almost imperceptibly crept over the mud flats were a revelation to me. In early April they looked uniformly dun coloured unless touched up by sunset or sunrise. But as the stately pageant of summer passed by, each month brought its own flowers and revealed new beauties. October decked them in a riot of colour as sea purslane (*Obione*), samphire (*Salicornia*), the sea lavenders and rabbit-bitten *suaeda*, changed to grey and gold, orange and scarlet, copper and brown, while the tide filled the runnels with blue and silver. The great salt marsh below the hut was like a vast oriental carpet spread at one's feet. We called this marsh the great jig-saw puzzle because of the interminable turnings and twistings of the innumerable tiny channels intersecting it. In the hey-day of summer it was the most perfectly planned landscape garden imaginable, with its overhanging banks, massed borders of sea lavender and meandering streams. We loved to paddle about in it when it was half covered at the spring tides, taking care not to slip into the deeper channels. There was a wonderful fascination too in watching the tide crawling over the marsh and trickling lazily along the tiny runnels ; so quiet at times, so relentless in its oncoming. When the spring tides reach their limit nothing is left exposed but the sand-hills. This occurs about 9 a.m. and 9 p.m. twice a month, but as the water recedes very quickly from the saltings, some

BIRD WATCHING ON SCOLT HEAD

portion is soon left clear. During the fortnight of neap tides the whole area between Norton Creek on the south, and the coast line on the north is dry enough to walk over. It is Norton Creek that makes Scoln Head an island. Midway between Burnham Overy and Deepdale the tides in Norton Creek meet, one arm of the creek empties itself at Burnham Overy, and the other runs out by Brancaster. During the high tides the creek seems just to spill itself over the saltings. This impressed me very much the first time I saw it. I was lying on the Head watching a rather rough sea beating its way up all along the coast, when, turning to look over the mud flats, I found the whole area covered right up to the sand-hills. It was as if while one arm of an invading army fought its way desperately towards its goal, the other had crept up insidiously from the rear and completed the enveloping movement. As this was my first experience of a high tide I naturally wondered how long this splendid isolation would last.

We of course made the best use we could of the spring tides, and tried to arrange for all heavy luggage to coincide with the fortnightly high tide, because then a boat could sail right up to the steps leading to the hut on the south, deliver its cargo and get away before the water receded.

If gales accompany the spring tides they cause considerable coast erosion by under-cutting the hills and loosening huge masses of sand. There is however a certain amount of compensation for this waste, when blown sand drifts back into the hills with suitable winds. There is constant movement one way or the other, but in some vulnerable places a good deal of artificial work is necessary in order to prevent waste.

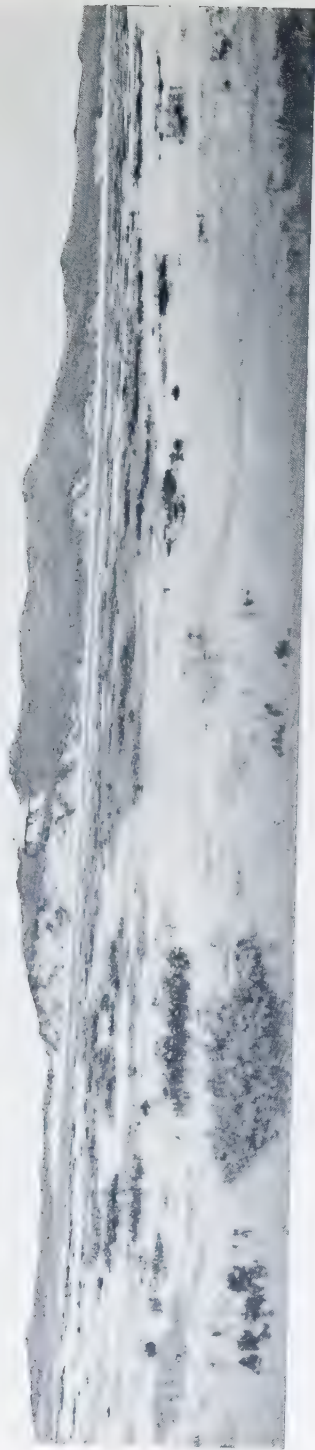
The duties I undertook were fairly onerous. First and foremost there was the finding of nests and eggs and looking after these. That alone in the breeding season is one person's job. Then there was the housework and cooking. A man watcher always has someone to cook



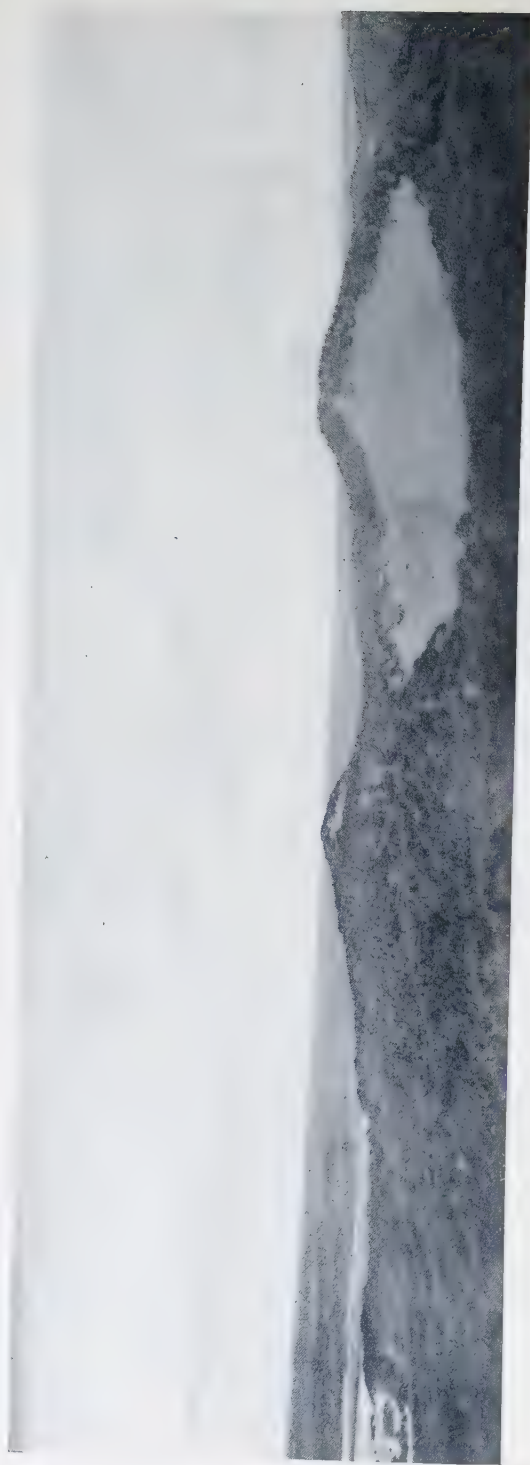
SNOW ON THE SALTINGS



THE GREAT JIG-SAW PUZZLE



THE INVADING TIDE



SCOLT HEAD

SCOLT HEAD

for him, in fact what sensible man ever does *any* work that a woman will do for him? Visitors had to be looked after and catered for. The catering alone sometimes was difficult to cope with, especially during spells of warm weather. There was no cool larder, and consequently in summer food would not keep more than a day. Sometimes, in the midst of cooking an evening meal, a boatload of trippers would be seen rounding the far beach and making for the Ternery. By running hard and making a bee-line for the Ternery (given a low tide), the distance could be covered in seventeen minutes and the visitors intercepted as they landed. Ultimately someone was always on the spot during the hours when boats could land there. We took it in turns to watch all day and put up a little tent which afforded shade and some shelter.

At first all firewood had to be collected from the shore. Originally there was a big baronial open fireplace in the hut. The fire always smoked, except with an east wind and with the door wide open. The bringing in of logs was severe labour, because we had to wander two or three miles in order to find any after the first week or two. The improvised stretcher made out of a canvas bath (a useless adjunct owing to lack of water) and two broom handles would not bear a great weight, nor could we carry many heavy logs at a time. We made dumps of wood all along the shore and expected every man visitor to do his bit in carrying them home. But after a morning's struggle getting a load up to the hut, if the fire was in a good mood, it licked up all the pile in less than an hour. One member of the committee undertook to saw up some logs for us on Easter Monday. He came, he sawed (or tried to) and gave it up, saying, 'Here, this must stop, it's impossible.' Sea-soaked wood simply turns and blunts the best of saws. As a matter of fact it was impossible to keep that fire fed, and a terrible waste of time and energy. Things reached a climax one night. Almost a full gale was raging and it rained as it only can rain on Scoln Head. I had to go out

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and lace down the awning over my kennel as it was loosened. Empty boxes and tubs were hurtled along the hill and on to the shore. Almost as soon as I had closed the door my mate cried out. Looking through the window I saw that the whole of the fire had blown across our living-room, and hot embers were careering round one of the little sleeping cabins. I dashed back, and, after our combined efforts had closed and locked the door, we hastily swept up the burning wood and extinguished what remained of the fire. And that was the end of the baronial fireplace! By the end of June a small cooking range was put in and the terribly draughty chimney filled up. All our cooking was done on the very efficient oil cooker, but heat which starts half a yard from the floor does not warm one's feet. Spring on the east coast can be arctic, whilst the autumn is often balmy and mild. Our greatest trial was the shortage of water. Theoretically there should be fresh water in the sand-hills, lying on top of the salt water. Practically there was none where the shaft was sunk below the hut. After a high tide there was some salt water which we used at first for cooking vegetables. Ultimately this fell into disuse. The big open concrete shaft was a great attraction to small boys and various things were thrown down it.

The water from the oak shingled roof of the hut was thick and brown to start with owing to the tannin in the new oak. When soap or soda was added it took on that dirty greenish tinge that was characteristic of mid-Victorian unrefined treacle. This was all the water we had for domestic purposes. Even that was limited, especially during a dry spell. It should at least have had the redeeming qualities of soft water, but during the first two months it cracked the skin and even the flesh round our finger nails. All drinking water had to be brought from the mainland until August 1925. By drinking water I mean all that was required for cooking purposes. We tried to make two nine-gallon barrels last a fortnight, that is, between the spring tides. Often

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this was impossible, and consequently our henchman had to carry a barrel across from the Far Beach or from Butcher's Beach—the two principal landing-places, a distance of a mile in one instance and nearly half a mile in the other. If any visitor dared to leave any water in his or her tumbler, it was either saved over for the next meal or the visitor was taken by the scruff of the neck and made to swallow it. People living in towns and using twenty or thirty gallons to a bath cannot realize what it means to conserve every drop. We were always short of water. A basin of roof water was used repeatedly by several of us for hand-washing, until it was fairly stiff! Minor tragedies sometimes occurred. One June day my mate and I had to go ashore for the day. An unexpected visitor came for the night just as we were starting to walk across the sands. This lady said she could fend for herself; we told her that water was sure to come soon but that there was not a drop in the hut. But when we returned at 6 p.m. supplies had not come, and she had nothing to drink till 9 p.m. The committee then supplied me with a case of bottled water for emergencies, but soon afterwards Mr. Douglas Carruthers put up sloping sheets of corrugated iron on the hill-side, these were linked up with big cisterns, and from that time onwards there was always a plentiful supply of good drinking water. These little trials are amusing if you are merely a week-end visitor, but for those of us who were resident for weeks on end the joke quickly palled.

The publicity given by the press to Scolt Head brought many visitors; these we classified under three headings—the merely curious, bird lovers, and those who were really interested in the work of the Watcher. The first merely gaped and went away, and the second were shown enough to satisfy them. Of those belonging to the third order I have happy memories. There were pleasant talks and merry scratch meals in the hollow by my tiny look-out hut near the Ternery. They

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were of all sorts and conditions. One enthusiastic mechanic suddenly appeared in next to nothing, having somehow waded up to his arm-pits from the Brancaster golf links side. He retired behind a blade of grass, re-arranged himself, and stayed for hours regaling us with tales of his boyhood's escapades in search of bird lore; hard-won knowledge gained before school hours or, in later life, during scanty hours of leisure.

Throughout the breeding season of 1925 there was always someone watching the Ternery early and late. Often there were two of us, and if, as occasionally happened, a suspicious looking party landed, a sign to my mate would bring her lounging casually in my wake, able thus to keep an eye on the tail end of the party.

A bird-reserve under the National Trust is not ideal. The watcher's powers are limited. Unfortunately for the birds, as soon as an area is preserved all and sundry want to visit it. This is quite natural. Subscribers want to see that they are getting their money's worth, and bird lovers like to see the birds. Both types of visitors call up all their conductor's reserves of patience and tact. It is heart-breaking sometimes to look round an egg-strewn shore after a party has been conducted over the breeding grounds. Visitors, with the best intentions possible, cannot help doing damage, especially to newly hatched and perfectly camouflaged young. One day a man badly wanted to see the eggs and young of lesser terns. I took him to one of their colonies and pointed out the nests. The poor man was suddenly seized with fright and remained for a considerable time with one leg suspended in the air, not daring to set foot anywhere.

The inhabitants of Deepdale and Brancaster were unswervingly loyal to the Trust. During the first weeks of my residence numbers of village women came to inspect the hut. They were far more interested in my domestic arrangements than in those of the birds. Most of them left me with a pitying smile or an openly expressed 'Rather you than



THE MALE COMMON TERN BRINGING A SAND-EEL TO ITS CHICK



AQUARIUS
H. LOOSE

SCOLT HEAD

me,' so that I was surprised and gratified when a quiet looking dreamy-eyed young woman murmured ' You can never be lonely near the water.' Children, too, came over on Saturdays and told me about their little lives, and what ' teacher ' said about this and that, and how they had seen lots of marked eggs but ' never touched them.' I missed no eggs till Whit-Sunday 1925, when I was left alone with a party of fifteen, some of whom were markedly inimical to the whole scheme of local bird protection.

There was much controversy at Blakeney just then over the food of the terns. The Brancaster men seemed rather amused about all these heart-burnings. While their brethren along the shore were complaining that the birds destroyed too much fish, Deepdale men were manuring their gardens with the coveted ' whitebait,' pailfuls of which they dredged out of the harbour and channel.

During my time at Scoln Head daily supplies were brought or sent by Harry Loose. He did his best for us but seldom came himself, except on Sundays or at high tides. The daily service was a bit irregular but it never failed. The committee thought I should have some method of signalling, and suggested various devices such as Verey lights and pistols. Finally it was decided that a flag should be hoisted daily from the Head just to show that I was alive. In addition I had the code flags N.C. in case of distress. In the beginning I told Loose that if ever he saw *two* flags hoisted he was to come post-haste with the doctor and coroner. The second summer I had quite forgotten my instructions and thoughtlessly hauled up a tea-cloth above the Union Jack. This was a pre-arranged signal to inform a friend at Overy that I was coming to tea. Being Sunday, Loose came himself in his beautiful white thigh boots and his hair of Scandinavian gold. His bronzed face and his hair were streaming with perspiration, as he had run most of the way from the far beach, remembering my injunctions with regard to two flags.

BIRD WATCHING ON SCOLT HEAD

Naturally he was annoyed at finding me quietly writing in the hut. I grovelled.

There was only one occasion when I was unable to climb up the Head and hoist the flag. Nothing happened ; Loose was away at sea and his subordinate failed to notice the blank. About mid-day two kindly strangers happened to come along and one stayed with me till medical aid arrived. I had been bitten the day before by a specially vindictive fly and was unable to walk for a week. Happily two able-bodied visitors came for the week-end, and they did most of the work till I could hop about.

There was one day when about 10 a.m. the flag flew at half-mast. It had been hoisted at dawn on a lovely misty October morning before we set off on our migration round. As we returned I called attention to the drooping flag and ran up the hill to tighten the halliards, which having dried since dawn, had caused the flag to drop. At the top I suddenly came face to face with my henchman, Pells, who had approached from the opposite side. His look of horror soon gave place to relief. Evidently he thought that I had lowered the flag with my last breath and that my corpse would be found at the foot of the flag-staff.

The second year ' Mabel ' brought our supplies and in many ways added to our comfort. She could handle a boat and carry heavy weights, and of her own freewill cleared up the hut and wrestled with that bugbear of daily life—the washing-up. Being a woman she saw what had to be done and did it.

There was always something of interest or amusement to be seen. One day, as I was walking along the shore towards Smuggler's Gap, I came upon the largest and most venerable crab I have ever seen, dead or alive. The tide was ebbing and this ancient crustacean was left high and dry. It had lost one big claw and only waved its antennae feebly.

SCOLT HEAD

On either side of it stood a great black-backed gull apparently waiting for its demise. I spied the gulls from afar as they stood erect and motionless. Now and again they seemed to cast furtive and jealous glances at each other. They did not move until I was close up to them. I gingerly picked up the crab and, walking into the sea up to my knees, flung it as far out as I could. On my return an hour later the crab was again left stranded with the gulls in attendance. Curiosity urged me to sit down and see what happened, but pity gained the day. Again I took it into the sea, but what its ultimate fate was I cannot tell. There was no sign of it on the shore the next day.

Small crabs and sea trout were our great delicacies, and sometimes when food was short I could get several yard-long fish for three half-pence. They were quite good eating, but their veins turned emerald green in the cooking, which rather put off some of my guests. Samphire (*Salicornia*) we considered a great delicacy when it was in its prime. The natives like it pickled, but we preferred it fresh.

There were of course leisure hours between the strenuous walks. These were frequently spent in some sheltered spot on the Head where rest and observations could be indulged in simultaneously. There is a great fascination about the fringes of the world, and the fringe of coast forming my horizon landwards was full of beauty. The gently undulating hills had charm of colour and outline. During my first season I watched the first faint pale green of the springing corn through all its colour changes till the uplands were a blaze of gold and the ripe harvest was gathered in. The woodlands chanted the epic of the seasons from April to October. There was one great rectangular field of blood-red poppies on the slope of the hill-side which was a joy to us though probably a grief to the farmer. There was also, to me, a mystic road winding over the uplands and passing out of view between two tall sentinel trees. It seemed to be the one link with the big world beyond.

BIRD WATCHING ON SCOLT HEAD

Roads, next to birds, are my ruling passion. Often I fell to musing over the great network of green roads which intersect all that coastal area and run far inland—not only the well-known and Romanized Peddars Way but many others, the origin of which is forgotten. One's mind would often turn to the Count of the Saxon Shore and to the fort of Branodunum commanding the entrance to the Wash, the site of which was visible to me.

“Trackway and camp and city lost,
Salt marsh where now is corn.”

The regiment of Dalmatian Horse stationed at that then desolate outpost must often have scoured the uplands both inland and along the coast. Swift communication was very necessary in those days, and some of these old green roads may have been in more direct communication with Brancaster than the Peddars Way, which is four miles west of the fort. A lost road once connected Brancaster with Caister.

Then there was the sea, and on rare occasions one saw the whole outline of the coast from the Wash to Skegness, thirty-five miles away. Once I saw this in a mirage upside down. Ordinarily it was only visible from the hills, but on that occasion I was lying by my tent on the Ternery. It was an extraordinary and beautiful sight. All the trees along that part of the Lincolnshire coast and the houses in Skegness were plainly visible. The mirage lasted about fifteen minutes.

Only once was I seized with panic. I was alone walking towards the harbour bar. The tide was far out, everything was still and a thin white mist enshrouded land and sea. The thin vapour seemed to add to the immensity. Nothing moved or uttered a sound. Suddenly a single Jack snipe got up at my feet and flew silently away as is its wont. The tiny bird and I seemed ‘Alone, on a wide, wide sea.’ I do not know why, but terror seized me and I fled back to the warmth of the hut.

When there was nothing doing in the way of birds we amused our-



OCTOBER SUNRISE



BLACK-HEADED GULLS COURTING

selves picking up the innumerable carnelians which may be found on the beach, especially after a gale.

The flowers too were a joy ; many of them were new to me. The most beautiful were the sea holly and sea convolvulus (*Calystegia soldanella*). I had never seen so much sea holly anywhere. One could not be dull during the long hours spent on the Ternery while its delicate and indescribable ' powder blue ' stretched across the marrams like a faint mist. Certain hillocks of sand too were covered with the great white pink-striped trumpets of sea convolvulus. Then there were the sea lavenders. I never found more than three out of the four, but they sufficed. In many places the shingle was carpeted with the delicate *Statice reticulata*, a rare variety elsewhere. The sea heath (*Frankenia laevis*) was new to me. It covered the shingle ridges in places with its delicate pink blooms. The marshes east of House Hills were ablaze with thrift. The great masses of golden ragwort, *Senecio jacobæa*, were always ruined by the larvae of the Cinnabar Moth. The only plant we each and all disliked and cursed was hounds-tongue (*Cynoglossum officinale*). It grew everywhere. The flower is dull, and the seeds are a nuisance. They clung to our clothes till at times we could not move and had to clear each other of these rough spiky pests. They even walked up our sleeves and down our necks, causing much discomfort. There were many other flowers of course, a detailed account of which has been already published.¹

Time softens everything. In the strange warp and woof of life it is the bright threads which retain their colours. So looking back on the Scolt Head episode I remember best the sunlit sea and sands, the wind in the marrams, the white blur of shimmering wings, the faint glimpses behind the veil enshrouding the great mystery of migration ;

¹ "Vegetation of Scolt Head Island," by F. C. Deighton and A. M. Clapham. *Transactions of Norfolk and Norwich Naturalists' Society*, vol. XII. part I.

BIRD WATCHING ON SCOLT HEAD

and last, but not least, the constant kindly remembrances from friends and also from utter strangers.

My appointment as official watcher came to an end on November 9th, 1925. The committee had before that found a good successor to me in Robert Chesney, who is in every way the man for the task.

SPRING MIGRATION

SPRING migration on the East Coast is not as a rule very exciting. On the north Norfolk coast both the spring and autumn movements are mainly east to west. Diurnal migration is of course easily visible from any point. The flushing of stray tired small birds which have crossed the sea during the night or in the early hours of the morning is a very different matter. It is possible that the springs of 1924-5 may have been poor ones as regards visible migration; very few passerine birds seemed to drop in, and those that we did see were nearly all flushed in certain well-defined areas. As far as my own experience goes this is the case on every bit of coast that I have watched. Even in a small area like Scolt Head Island, with its five miles of foreshore, this was very marked. Certain inlets or groups of bushes were resorted to by certain species. Ultimately therefore we gave more particular attention to these productive areas than to the barren spaces. But we felt that it was our duty to patrol the length and breadth of the 1200 acres regularly. This is where the dogs came in. The wide stretches of *suaeda* between House Hills and Overy Creek were the hardest to hunt and the least productive. The sheltered corner at Overy end was always worth while. If the dogs flushed a small bird out of the acres of *suaeda* it was a difficult job to follow it up. Before every part of the island became familiar ground one frequently came to grief. There are no short cuts in certain phases of the tide. During the first half of May 1924 I was fortunate in securing the help of Mr. and Mrs. Coward. One day when we were widely separated on the saltings, I tried a short

BIRD WATCHING ON SCOLT HEAD

cut and found myself up to my knees in a muddy creek and had to signal for help ; between laughter and the trials of a slippery bank it was some minutes before I could be dragged out. We did not attempt to beat over the whole area more than once a week. The shorter and more productive east side of House Hills were often worked twice a day in addition to other resorts frequented by incoming birds. The elder bushes on the east side of House Hills seldom failed to produce some bird. There were a few stunted rose bushes further on, also likely resorts. Beyond these there was ' the amphitheatre,' a big inlet fringed with *suaeda* under the sand-hills. Two or three tall bushes often hid a bird. Further on a thick bramble and some meagre elders were worth a call. Sometimes birds flushed from the big elder bush—' the Hotel Ritz '—at one end of the line of hills, would flit from cover to cover till they reached the bramble at the other end, and then go all the way back. Birds like chats and finches were easily identified, but little skulking warblers and the exasperating buntings led us an interminable dance. Of course a gun would soon have settled the question of identification. There is no gainsaying the adage that ' what is hit is history and what is missed is mystery.'

Sometimes birds in the ' Hotel Ritz ' were very tame. Given a sunny morning they would sit on straggling sprays of elder and preen their feathers. We once watched an immature bluethroat (*Luscinia suecica*) for half an hour as it sunned itself and eyed us after the perky manner of a robin. Its note was rather like the ' chack chack ' of a wheatear.

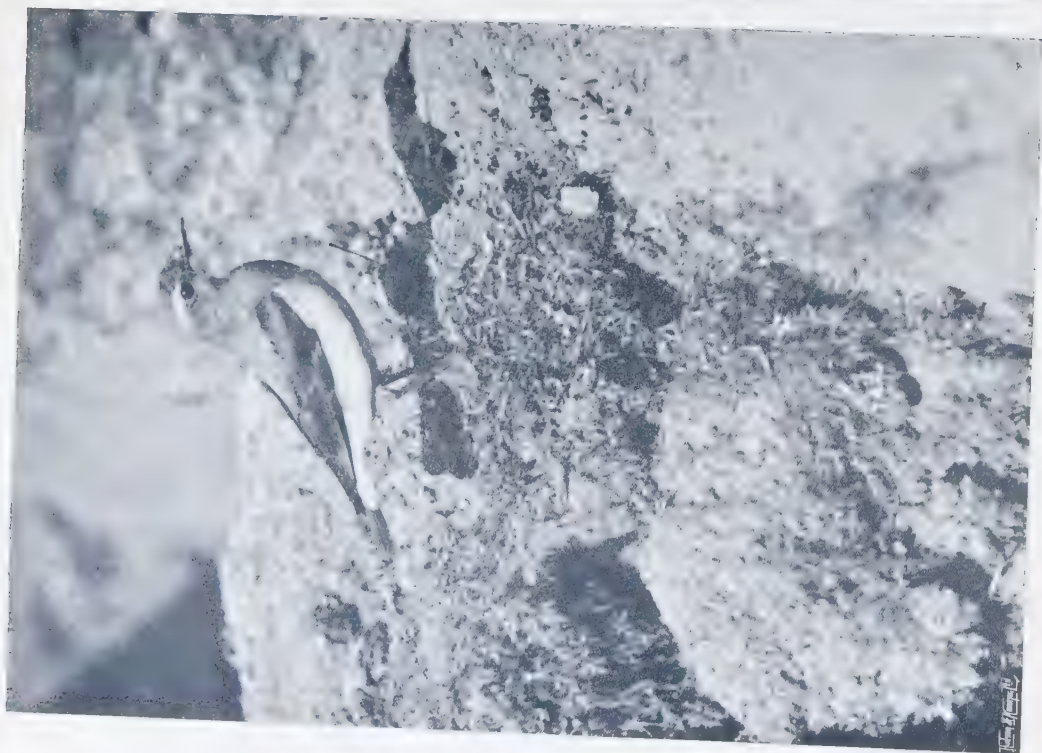
The first time we explored the Overy end (April 4th) and up to mid-May, we simply kicked up larks and meadow pipits at every step. The breeding skylarks and pipits had already taken up their residence when I arrived on April 1st. So also had many linnets. These were the only song birds resident on the island. How I missed the great



THE HANDSOME MALE BLUETHROAT.
A PASSING MIGRANT



MALE WHEATEAR



FEMALE WHEATEAR

SPRING MIGRATION

quire of woodland birds at dawn during that first spring ! The only warbler's song I heard was a fragmentary ditty uttered by a migratory willow wren in the marrams. But the Scolt Head Hymn to the Dawn issuing from the throats of countless skylarks singing in unison was a compensation unique in its way. Linnets and pipits tuned up later on, but linnets were at their best in the evenings.

In the spring we worked very hard for very small results. Two or three song-thrushes and blackbirds, a few willow wrens, whitethroats (both species) and chiffchaffs, one or two wood-warblers, a garden warbler and a blackcap, a few pied and spotted flycatchers, and two or three red-backed shrikes. We saw no sedge or reed warblers on the island itself, though we found them across the creek, by Deepdale Mere. In fact, later on in 1925, we came to the conclusion that most of the warblers frequented this little mere and the reed-fringed dykes surrounding the meadows. There was no fresh-water pool on the island, nothing but a tiny rather deep hole on House Hills where the water is brackish at times. This depression has since been widened, but I have seen no small birds there except larks and pipits.

Chats were more numerous than warblers. Whinchats frequented the Overy end. An occasional redstart skulked in the bushes, and on May 14th a black redstart appeared on the hut. Afterwards we looked upon the black redstart as our mascot. Wheatears were common migrants from April 5th onwards, and several Greenland wheatears, mostly in pairs, came in during May. One female Greenland wheatear caused us some amusement. She had the most imposing carriage of any wheatear I have ever seen. She and a cock bird stayed all day, the female sat bolt upright and eyed us furtively ; she was a very model of deportment. Usually the carriage of Greenland wheatears is different from that of the common variety ; they are also bigger and appear much brighter in colour. This particular hen bird seemed to resent being

BIRD WATCHING ON SCOLT HEAD

stared at. Perhaps birds do. They have no privacy nowadays when their most intimate domestic concerns are spied upon by people armed with binoculars and by photographers; the man with a gun at least shot you dead without bothering overmuch about your innermost secrets. Yellow wagtails passed daily up to the second week in May. We found two nests in 1924, but none in 1925. Pied wagtails and an occasional white wagtail also passed westwards.

After a long and weary trudge, reckoned not by miles but by the nature of the ground traversed, it was a welcome relief to lie on the Head and watch the *Hirundinidæ* and swifts flying past. In 1924 swallows appeared on April 17th, house-martins and swifts on the 24th, sand-martins on the 26th. On the last date passage movements to the west began and continued almost without interruption till June 3rd. Even as late as July 15th little parties of sand-martins were passing west. Most of the swallows and martins seemed to travel along the sand-hills, though not directly over them, till they approached the *col* between the two highest sand-hills forming the Head. It is impossible to estimate their numbers. Sometimes all day long they came swinging past singly, in twos and threes and in little parties of from fifteen to twenty. The direction of the wind seemed to make very little difference to the number of passing birds of *any species*. On some of the roughest days, with a following wind, the numbers reached their maximum. Swallows and martins twittered as they flew. Their movements were often interesting. Sometimes one of two would cross the *col* while the other rounded the hill; then both would meet overhead, twitter a greeting, deviate for a moment from the straight line of flight, shoot upwards, drop to a lower level and then wend their way together westwards. Generally however the spring passage movement was hurried and definite; the birds rarely circled round the Head to feed. Swifts appeared on April 24th, 1924, and on May 4th, 1925. Unlike the



WHINCHAT



STONECHAT



SWALLOWS, DRENCHED AND EXHAUSTED IMMIGRANTS



A YELLOW WAGTAIL

SPRING MIGRATION

Hirundinidæ swifts seldom crossed the *col*, their line of flight being mostly south of it and extending in a broad front across the saltings. Few passed between the sand-hills and the sea, but the flight lines converged near the harbour bar. From May 28th to June 3rd, 1925, there were heavy S.W. gales. Each day swifts passed in great numbers, especially on June 1st, when they swooped past in parties of fifty and sixty from 6 a.m. till 6.30 p.m. The biggest rush was between 12.30 and 2 p.m. During the *spring* migration these hours were often most favourable as regards numbers, whereas in the *autumn* the rush was generally over by 10.30 a.m.

During those six stormy days it was a desperate struggle for us to get to the Ternery, and owing to blown sand, our outlook was limited and observation difficult. Sometimes one line of flight only could be followed by the observer, even then the numbers of passing swifts seemed incredible. When they reached the Point they dropped low while crossing the water. All day long they flew in the teeth of the gale with apparently little effort. The strength and ease of their flight is amazing at all times. Probably migration makes very little extra demand on the strength of swifts, which practically live on the wing, so they failed to rouse my pity as did many other species flying under similar conditions.

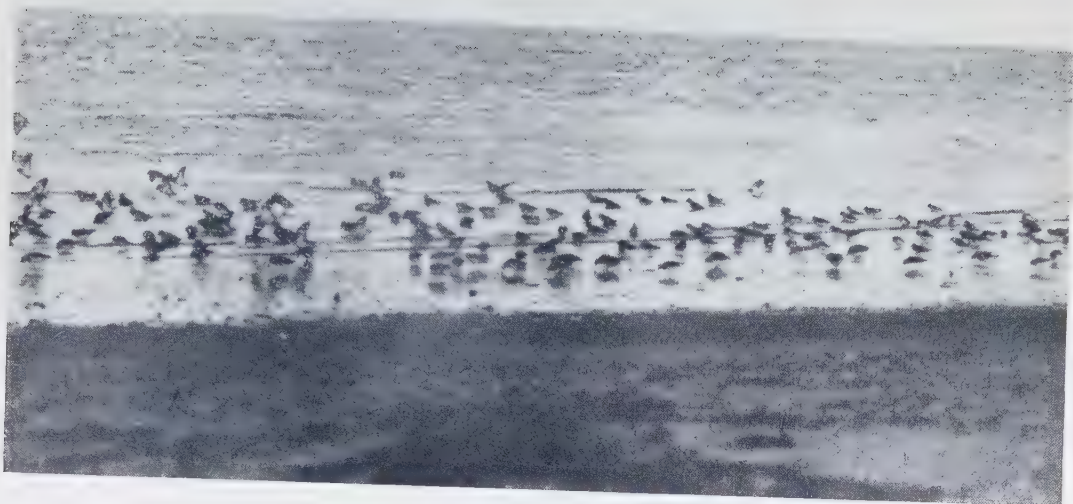
On June 4th, when the big rush of swifts was over, the wind veered from west to east at 2 p.m. It was a very hot day. I was sheltering from the sun by my look-out tent when I suddenly caught sight of what seemed to be a snow storm drifting along the hills before the east wind. As the snow flakes approached they resolved themselves into large white cabbage butterflies (*Pieris brassicae*). At times the sky was full of them. There was a continuous stream during the whole afternoon till dusk. The greater number seemed to fly low, not more than fifty feet above the sand-hills. There were some higher up, and there may have been

BIRD WATCHING ON SCOLT HEAD

many, for bits of airy nothingness soon become invisible, and white especially is apt to vanish entirely in certain lights. With my glasses I could detect clouds of these butterflies drifting across the sea on a wide front. They perished in numbers. Pursued by various birds, including the terns, and buffeted by the wind, they fell to the ground bruised and broken. But the great snow drift passed on its way over the harbour bar and vanished into the west. If the steady rhythmic wing beat of the swifts called forth admiration and wonder, the feeble flickering flight of these ethereal migrants left me gasping. A few passed on June 5th, the wind still blowing from the east, but these seemed to be mere stragglers.

The movements of waders are complicated in the spring. On April 1st, 1924, there was a bunch of about 2000 knot feeding below the hut when I landed. They frequented a certain patch of sand which was bare of vegetation and only wet after the spring tides. On examining this patch when the knot left it for another favourite feeding ground a mile to the west, there was not an inch of sand which did not bear the impress of their tiny feet. There is an immense attraction about the footprints of waders. They have never been systematically photographed, and *this* photographer had no time to do it. It is not an easy job, as a clean-cut outline depends entirely on the amount of moisture in the sand. Knot and dunlin sometimes leave no more trace of a hind toe than a sanderling, which does not possess one.

On April 6th this flock of 2000 knot mounted upwards in a long spiral, and when almost invisible they flew away west. I did not see them again, though little parties came in at intervals throughout April. All these knot were in winter dress. On May 1st two or three appeared in transition plumage, and on the 8th we saw four very red birds, and six in full summer dress on the 11th. In 1925 I did not begin my watching till April 30th, when there were no winter resident knot left.



WADERS FEEDING



WADERS—DUNLIN, TURNSTONES, SANDERLINGS



GREENSHANK

SPRING MIGRATION

On May 3rd and 15th we saw eight in transition plumage, and a few throughout the month, but none in full breeding dress. A few sanderling, some in transition plumage, might be seen up to mid-June, the bulk of those which winter at Scolt Head seem to move on before April.

Many other waders came in throughout May and early June. In fact, incursions of waders seem to occur throughout the year, so that it is difficult to draw a hard-and-fast line between their spring and autumn movements. Whimbrel uttering their plaintive call appeared at the end of April—' May birds ' is their local name. Generally solitary migrants, they may be met with anywhere, but day after day, each spring, one frequented a certain salt marsh below House Hills. Turnstones in full breeding dress came in throughout May and early June. Their beautiful ' tortoise-shell ' plumage is perhaps the easiest of the wader plumage to identify.

Greenshank passed throughout May and June, and loitered for a few days amongst the muddy creeks. Lapwings are now not numerous on the island as breeding birds, though they pass in vast flocks. I only saw one golden plover in breeding dress. Grey plover in every variety of plumage were recorded almost every month except August, and were seen in all their war-paint between May 21st and September 21st. Many pass over the island calling to one another with that curious questioning cry which sounds as if they were perpetually seeking to solve the riddle of life. But the grey plover is a happy-go-lucky creature, and one of the smartest of birds when it is arrayed in all the brilliancy of its breeding dress. There is no plumage so really *chic* as exquisitely blended black and white. That is why oyster-catchers look so impressive, but they add a dash of red to their make-up and this gives them their decidedly rakish air. There were few oyster-catchers about in April except the breeding stock, which began to take up their residence

BIRD WATCHING ON SCOLT HEAD

on April 2nd. Dunlin in full breeding dress came in throughout May and June. Sometimes a large flock frequented one spot for days, sleeping away the hours between the tides and only waking up at feeding time. A few in every stage of plumage remained throughout the summer.

Curlew may be seen on the mud flats throughout the summer, and indeed, throughout the year. They do not breed on Scolt Head Island, although I have at times seen them behave as if they had brought fully fledged young down on the marshes to feed. Many great crested grebes and divers pass on the sea. These birds are more frequently seen moving from west to east in the spring. On May 13th, 1925, I watched three black-throated divers in full plumage on the sea ; two seemed to be courting the third. Through my glasses I could plainly see them raising and lowering their heads after the manner of these birds when they are courting. One was driven away and swam rapidly eastwards. The other two followed in a leisurely manner. During April 1924 a bunch of velvet scoters were always to be found in a given area below the Head, while the mass of common scoters blackened the sea further out and more to the west.



CURLEW



THE MALE RINGED PLOVER, TAKING THE FEMALE'S PLACE ON THE EGGS

RINGED PLOVER. *Ægialitis hiaticula* (Linn.).

I STARTED work at the beginning of April in order to make myself familiar with the lie of the land before nesting began in earnest. I was on trial and quizzically watched by various local inhabitants who, owing to my inability to grasp the local names of various birds, naturally looked upon me with suspicion. So when one man said with great glee on April 16th : ' Where are your eyes, there's a " stone runner's " nest with eggs on Felter Skipper's beach,' it was gratifying to retort : ' We found several two days ago.'

Ringed plovers were already courting as we journeyed up the creek on April 1st, and the shingle spits were alive with their musical mating song and airy dance, while innumerable tiny depressions showed that the males were announcing their intentions by making these false nests. The dance of the ringed plover is a very dainty exhibition. Both sexes indulge in it, for when the female has accepted her mate they celebrate the occasion by standing on tiptoe, and with upraised wings seem to sail along the shingle while their feet tread upon the ground as if it were air. Both birds utter a beautiful yodelling song as they dance thus together. When ringed plovers run about the beach pursuing their daily avocations their bodies look clumsy and rotund, but when they are swayed by emotion the long pointed wings raised high above their heads seem to lift the bird into another plane. Then the clumsy body becomes full of grace, while the little twinkling feet tread the mazes of a mystic dance. The cock makes a great many scrapes in the shingle while he is courting and after the birds have paired. I have seen one

BIRD WATCHING ON SCOLT HEAD

cock make three scrapes in five minutes. All the time he is shuffling round and round on the shingle or sand making these shallow depressions he utters a triple note, picks up minute pebbles, throws back his head and rolls these stones down his expanded breast so that they usually drop in a little stream on one edge of the scrape. When we were marking depressions which might possibly be nests we turned down those which had this trickle of tiny pebbles. The hen comes and inspects these scrapes and generally seems to reject them. Now and again she sits in one for a moment and then walks away, meanwhile her mate stands by bowing and chattering. The real nest is often some distance from these false ones. The nest proper is usually paved with fine stones or tiny bits of broken shell; cockle shells seem to be the favourite pavement—it can scarcely be called a lining. On Felter Skipper's beach it was the prevailing fashion to pave the nests with fragments of pale blue mussel shell. The four eggs are laid on alternate days, very frequently in the afternoon. Nearly all the ringed plover's nests on the south side of the Head were robbed by rooks from the mainland and passing carrion crows. Usually the nests are in open and exposed situations. Nests hidden under *suaeda* bushes generally escaped destruction. In 1925 we tried the experiment of shielding some of the open nests with branches of *suaeda*. These survived longer than some but eventually fell a prey to the rooks. On the north shore, and especially in the Ternery or amongst the marrams where terns nested, no rooks dared molest the ringed plover's eggs or young. The mere sight of an approaching rook made the colony of terns rise *en masse* and drive it away. The ringed plovers do not pursue these attacks far but seem content to let the terns defend their mutual interests. They are, nevertheless, very fussy and agitated throughout the nesting season and use every art to draw away an intruder. I was very much entertained one day by a cock bird which objected to my presence near

RINGED PLOVER

the nest ; sometimes I laughed aloud, and that astonished and irritated it still more. It kept running up a smooth steep hillock and then, transforming itself somehow into a fluffy feathered ball, rolled down the hill, picking itself up at the bottom and becoming a normal ringed plover again. It seemed pleased and proud at this performance and repeated it several times, but finding me immovable it accepted my presence, merely eyeing me at times with disapproval. I could not see how it rolled itself up into a ball, the head was hardly visible and the plumage seemed all white. It turned and whisked downhill at such a pace that the eye could not take in details.

The eggs are usually true to type—the buff and brown imitation pebble type. In a furrow by the cart track going from the hut to the beach there was a lovely clutch of bluish eggs only faintly spotted with brown. These hatched safely, although we had to pass them several times a day. We found fresh eggs up to the end of June. Ringed plover will lay several times when they are robbed. I doubt if any of the birds south of the Head nested less than three times and then seldom successfully.

When the young are hatched the parents sham every possible injury ; trailing broken wings along the ground at a rapid pace, or falling into helpless heaps on the shingle they appear to be at the last gasp. The sandy coloured young are the most delectable of baby waders and the pace they can run is amazing. They utter a tinkling note like a tiny electric bell, and are generally obedient to the alarm note of their parents. But not always, for I saw an irate hen bird rush at her fourth babe, which loitered on the mud flat instead of running to cover with his brethren, and literally beat it with her wings up into the sand-hills. As a rule the young scatter in all directions at the alarm call and lie down flat. If you hide and watch, it is a pretty sight to see the parents round up their young from the four winds as soon as the danger is past.

BIRD WATCHING ON SCOLT HEAD

Young ringed plovers travel far and fast over mud flats, and when the hen has collected one or two she squats beside them while the male pursues and brings back stragglers.

By the end of July the breeding stock of ringed plovers is increased by incoming birds ; on September 7th, 1925, we counted three hundred on the far beach ; they were all stranded on a tiny shingle spit left uncovered by an abnormally high tide. These flocks are mobile and their numbers vary considerably according to the weather and the state of the tide, both of which conditions regulate their food supply.

No one seems to have discovered why sleeping waders stand on one leg ! Are they only able to rest these everlastingly active limbs one at a time ? I used to crawl to a certain point in the sand-hills beyond which a big flock of ringed plovers rested during certain days and watch them by the hour. For birds they sleep soundly ; but even when fast asleep some impulse often moves the flock mechanically forwards. They slept head to wind under the lee side of a hill or bit of rising ground. Maybe the shifting breeze affects them, but they move *into* the wind, ever so slightly and ever so gently, the whole flock advancing one step only. They may shift with a single *hop* on one leg, or putting both feet to the ground just *walk* a step. But they are still apparently asleep. If anything really disturbs them they fly off to some other sheltered spot and the same process is repeated. An amusing thing happened one day. The whole flock was sound asleep with the exception of one bird, which was standing about ten feet from my head. This ringed plover had the fidgets and continually beat the ground with the leg that ought to have been tucked up. Its near neighbour was evidently annoyed and watched it sourly between intervals of sleep. At last, unable to put up with this fidgeting movement any longer, it sidled up to the offender and deliberately knocked it over. The astonished culprit picked itself up, sauntered into the middle of the flock



MALE RINGED PLOVER GUARDING TERRITORY



KENTISH PLOVERS : RARE MIGRANTS TO SCOLT HEAD



COMMON TERN ALIGHTING

RINGED PLOVER

and repeated the same fidgety movement. The whole flock moved restlessly and then flew away.

Another favourite resting-place of ringed plovers was the shelving beach at Smuggler's Gap. This beach was the resort of other small waders such as dunlin and sanderlings. At times it seemed to hold a large amount of fresh water over a width of about fifty yards. Even during the neap tides this area was scored with countless little runnels of fresh water which trickled down to the sea. A flock of ringed plover asleep on this open beach was wonderfully camouflaged. We were often on to the birds before we knew it. They would rise, wheel out over the sea, and return to the beach and fall asleep directly we had passed.

The ringed plover is a hardy species and well able to hold its own in spite of the depredations of avian enemies. It is full of a truculent kind of courage which makes it drive away birds like sheld-drake if they show any desire to rest and preen themselves in its own territory. Big lumbering duck waddle meekly away when they are attacked by an angry ringed plover which could easily be downed by a single thrust of their strong beaks.

COMMON TERN. *Sterna hirundo* (Linn.).

THE mentality of the common tern is interesting because to the mere human observer it seems so deficient. I often spent from eight to ten hours a day watching the tern colony, and, although keenly alive to the charm and beauty of the 'sea swallow,' I had less respect for the common sense of the common tern than for any other bird with which I am intimate. As parents they show very little intelligence, and there ought to be an infant welfare centre established to teach common terns wisdom. Often one of a brood will be fed time after time to the neglect of the others, so that these dwindle and die; or being too feeble to assert themselves are trampled to death by their parents. The young are fed largely on sand eels. Sometimes the eels brought were from five to seven inches long, yet the entire fish would be crammed into the nestling's gullet as far as possible, while the spare inches were left dangling with disastrous results to the baby tern. Every day and several times a day we went to the rescue of these choked youngsters; some we were in time to save, but many died as the result of this hasty and forcible feeding.

There are, of course, many sensible parents. Sometimes part of a fish was brought and given to the brooding bird, which in turn fed the tiny young quite carefully. Once two parents had a tug-of-war with a fish. Apparently they could not agree as to which should feed the young. On another occasion one of the two nestlings belonging to these same parents was fed three times in five hours. The other, a shivering little creature huddled in the lee of a hillock, had nothing. It was dead

COMMON TERN

the next morning. I must say that these common terns were unusually stupid, but I am not generalizing from one pair. Scores of young were choked all over the ternery. In such a life as birds lead only the fittest can survive, and maybe it is their instinct to neglect weakly nestlings. But when the tern's method of feeding its young is contrasted with that of the birds of prey, which dole out minute tit-bits of food to all the nestlings, one cannot help wondering why Nature endowed the *Raptores* with intelligence and withheld it from many common terns.

Is this hurried feeding due to the difficulty of providing food, or is it the result of communistic jealousy? I often thought that if only terns would take more trouble in fishing for themselves instead of waylaying a successful fisher and trying to steal its catch, they would not waste so much time, and their hungry families would be better fed. Fish of course are largely used by terns during the courtship display, and the wild turmoil in the sky early in the season seems to be due to jealousy on the part of those terns which have not secured a fish to present to their prospective brides. April is often a turbulent month on the east coast and small fish are then difficult to obtain. But there is continual thieving in a tern colony throughout the breeding season. While the brooding bird or the young are waiting to be fed, several terns will chase one which is coming in from the sea with a fish and chase it round and round the sky, while the air resounds with their screams. If one bird succeeds in stealing the fish, the loser utters a cry of rage, drops to the ground and stands for a while spasmodically jerking nearly closed wings—a curious little nervous action.

While the terns are brooding eggs there are long periods of utter stillness in the ternery, a silence that can almost be felt. It is then difficult to believe that between two and three thousand terns of various species surrounded the watcher, all of them waiting for the young lives slowly shaping within the eggs. Then suddenly there is pandemonium

BIRD WATCHING ON SCOLT HEAD

as the entire colony rises screaming into the air, often for no apparent reason. Nerve storms travel electrically from one end of the colony to the other, for terns are in some ways the most excitable of birds. Yet provided the observer makes no sudden movement they are indifferent to human presence, so I could sit for hours amidst them and do what I happened to be doing, which was 'mostly now't.' What gave rise to the nerve storms it was usually impossible to say.

One day, June 25th, there was a curious episode which interested me very much. Early in the day we picked up two dead adult terns ; my companion took one back to the hut and I laid the other down on a hillock about twenty yards from my tent, while I went the usual round to bury the daily toll of dead nestlings. On my return to rest I sat with my back against the tent, jotting down notes. All at once I became aware of stealthy movement on the part of the terns, curiously enough unaccompanied by any sound. I was roused from my preoccupation by the shadows of hovering birds on the grass. I looked up, and some twenty common terns were hovering over the dead bird. These were rapidly joined by all the terns nestling in that area—some two hundred. They came along in twos and threes, each group in turn hovered over the dead tern, swooped down till they almost touched the corpse, rose again and joined those which had already viewed the dead. Then they all faced me and in perfect silence remained poised above my head. The whole episode did not last five minutes, but it was most impressive. The silence seemed uncanny. There was a menace in their dark eyes as they bent down their heads. They seemed to be accusing me, their guardian, of the murder of their comrade. Involuntarily I exclaimed 'I did not do it ;' but I felt so guilty. Gradually they dispersed to their various nests and left me alone with the mourned dead, which I hastily removed. The next day I replaced it on the hillock but nothing happened ; the incident was closed. If the terns had made a row about it



COMMON TERN PLAYING



COMMON TERN MEDITATING

COMMON TERN

I should not have been surprised, because it is their custom to scream when things annoy them, but there was no sound. The one roseate tern which joined them, however, did scream at me.

The male common tern fusses round the female all the time she is brooding and often brings her little offerings of gaily coloured pebbles and shells, or shining objects of various kinds. These are laid round the nest, and the female amuses herself by flicking them here and there as far as her bill can stretch. A very favourite gift was the flat black fish eggs common along the seashore known as "mermaids' purses." I found these in the nests of both common and sandwich tern, never in those of the roseate and lesser tern. I often saw them brought and laid by the sitting bird; the male sidled up with a peculiar strut and an ingratiating air. The female always examined these gifts with interest and kept turning them over during her mate's absence. To us there can be no meaning in these acts, for animal psychology is still a vague subject.

The nest of the common tern varies from a mere scrape in the sand lined with a few untidy grass bents to nurseries lined with short lengths of grass neatly arranged, while the edge may be decorated with coloured seaweeds.

The Scolt Head colony of common terns, roughly speaking, numbered about a thousand pairs in 1924-5. The first egg was laid on May 16th in both years. The second nest I found in 1924 was a single isolated one at the south end of the beach running up from Smuggler's Gap. The eggs were laid in a scrape that was originally made by a ringed plover. In one area on the south side of the Ternery nests were too close to the spring tide line and the birds lost both the first and second clutches of eggs each year. I do not think that any of them made a third attempt. Common terns are curiously antagonistic to the young of other terns. Communism in their case does not recognise the higher

BIRD WATCHING ON SCOLT HEAD

ethics. Although nests are often barely a foot apart; if the young common terns wander from their own area and have to run the gauntlet of sitting terns they are invariably pecked and often badly maimed or killed outright. Consequently there is great mortality daily in a colony of common terns from this cause alone. The critical age amongst both common and sandwich terns is when they begin to feather. Numbers die from some intestinal trouble. Between raiding gulls, blown sand, careless feeding, attacks from bad-tempered neighbours and this digestive trouble, it is a wonder that any nestling terns reach maturity. Nature, apart from man's interference, has many ways of keeping a colony within bounds.

‘ So careful of the type she seems,
So careless of the single life.’

My intimate association with a tern colony revealed much that was curious and not wholly admirable. But nothing could detract from the beauty of the birds as they rose in a great white cloud or descended like drifting snow. I hated the first weeks after they left. The far beach was a hushed desolation; the whole area looked as if a once prosperous colony had been sacked and destroyed by an enemy. In many places the young plants, such as sea rocket (*Cakile maritima* and *arenaria*), were trampled and soiled. The beach was strewn with discarded fish, which were dried to a chip by the sun and wind. Untidy nests littered the beach; derelict eggs and broken shells, chased by the wind, fluttered or rolled along the shore; in fact all the furniture of the colony was broken and scattered. Autumn gales added to the dreariness. There was no sound but that of the whistling wind and the sullen roar of the sea. The birds had gone, taking with them the beauty and grace which are theirs by inheritance.



THE MALE LITTLE TERN CALLING THE FEMALE TERN OFF HER NEST



YOUNG LITTLE TERN HIDING



EGGS OF THE COMMON TERN
(DOUBLE CLUTCH)

THE LITTLE TERN. *Sterna minuta* (Linn.).

IN 1924 the first little tern appeared on April 25th, when two passed the Head going west. On the 26th numbers came in between dawn and 6 a.m. They alighted near the harbour bar for rest and food. At 10 a.m. they all rose into the air and, after circling spirally upwards, flew steadily westwards. There is a great charm about little terns. In the distance, against the sky whether it be blue or grey, they look like flickering bits of white paper tossed into the air and borne along by the wind. As a matter of fact they are strong fliers, and their wing beats are rapid. The wings are long and pointed and smite the air with a clean cutting stroke. The beauty of their aerial motion is unrivalled. It is a delight to watch them even at their every-day business of fishing. They remain poised in the air like a hawk with their heads pointing downwards. Suddenly with half-closed wings they shoot into the sea, reversing as they drop. Sometimes they are completely submerged for a moment before rising with, or maybe without, a fish. Numbers will hover over a smooth patch of sea where they can sight their prey. Given a sunny day, there is no more entrancing exhibition of poetry in motion than this of the little terns fishing. They feed upon small fish, including sand eels, and on small crustaceans. On Hickling Broad in the autumn I have often seen them hawking for flies after the manner of black terns.

The two or three (sometimes four) pebble-like eggs are difficult to see on a wide stretch of shingle. At Scolt Head I saw no nests paved with broken sea-shells, such as I have seen in colonies elsewhere. The first eggs were found on May 20th, 1924, and on May 19th, 1925.

BIRD WATCHING ON SCOLT HEAD

Usually a few pairs nested in proximity, and the next group might be a quarter of a mile away, little colonies being thus scattered over the Ternery and along the shore, or in the sand-hills. Unfortunately little terns are given to nesting along the edge of the normal tideway, consequently the first high tide washes out the eggs. Shore-breeding birds are wise about the ordinary tide level but seem unable to grasp the vagaries of the spring tides.

One beautiful clutch of pale blue eggs high up on the shingle was marked with a curious single flint which we called "Buddha," this stone was used for marking special nests and I loved it. When I left in 1925 I carried it all the way over the mud flats and it now adorns my rockery, together with some sea heath (*Frankenia*) transplanted from Scoln Head. One has only to study the columns of the daily press to realize what rubbish the public will cheerfully swallow with regard to birds if only it is nicely dished up. I do not know what imp of mischief tempted me to sin in this way, but I was once asked why the particular clutch of little tern's eggs, referred to above, were so pale—'Pre-natal influence,' I replied, 'the bird had stared so long at that ugly Buddha stone that the eggs turned pale.' My interlocutor gazed at me open-mouthed and said, 'Is that so, how wonderful.' Being honest, I immediately recanted.

Young little terns are charming babes; they resemble balls of sand-coloured plush mounted on two slender sticks. They move with amazing speed over rough ground, suddenly drop down, and are then almost invisible. We avoided taking visitors near the colonies of little terns as far as possible, because after a party had strolled over their nesting area they often left little flattened corpses in their wake, which grieved the watchers exceedingly.

It so happened that both years, just as all the terns were hatching, the June seas were the roughest and wildest I experienced, consequently the mortality amongst the lesser terns was great. A long gully in the

THE LITTLE TERN

shingle, on the edge of which there was a group of eleven nests, was filled by the tide forced up by the north-west wind on June 18th. This gully was obliterated and the shingle flattened out. Fortunately most of the eggs had hatched on the 13th, and the young were higher up. But in such weather the difficulty of obtaining food is great, and very young birds cannot exist long without food.

Little terns are the least pugnacious of the terns; they do not display any animosity towards each other's broods, nor do they waste much time in chasing each other for fish. Nevertheless they are brave in defence of their young. One day a marauding crow invaded the Ternery and was promptly driven off by the whole colony. It seemed very much annoyed by the buffetings of hundreds of irate terns and endeavoured to retire in good order. Most of the birds returned to their nests as soon as the crow was beyond the breeding ground, but one courageous little tern followed it right across the harbour and was not content till the enemy reached the mainland.

The small size of the little tern, its short tail and white frontal patch easily distinguish it from the other terns. There is no royal road to learning the distinctive cries of birds; they must be heard, for they cannot be reduced to written language. The differences in the various cries of the terns consist largely in inflexions, harsh though they often are.

As soon as the young can fly the little terns congregate mainly near Deepdale harbour, or at the mouth of Overy channel, where fishing seems to be fairly easy. They leave the island about the first week in September. Except for a big influx on September 10th, 1925, owing to a S.W. gale, we saw only a few stragglers after the 6th September.

THE SANDWICH TERN. *Sterna sandvicensis* (Latham).

SANDWICH terns, the largest of our breeding terns, are rather inconsequent birds. They nested at Scolt Head for the first time in 1923. In 1924 a few birds passed on April 30th and some stayed. Four eggs were laid on May 20th and nine by the 27th. None of these eggs were ever brooded. The terns merely played about on the shore till June 7th, when there was a large influx. Fresh eggs were found from June 9th to the 26th. Eventually there were forty nests and fifty-three eggs, not counting the nine neglected eggs which were eventually removed.

In 1925 sandwich terns began to come in on May 2nd, after which they arrived in a steady stream. On May 4th there were ten pairs ; on the 13th sixty birds sat in a bunch on the beach contemplating *one* egg. On the 18th I counted thirty-five eggs, and 173 on the 22nd. By June 1st there were 640 nests, more than half of which contained two eggs. By June 15th a number of young had hatched, so that these terns were a month in advance of the previous year. I counted the eggs on June 16th, when there were 341 doubles, 257 singles, and three triplets. By the 19th most of the young were out. Three days elapsed between the hatching of each nestling.

Sandwich tern eggs vary very much in colour and markings. A closely packed colony of nests, each of which contains a clutch of big boldly marked eggs of every colour is an extraordinarily beautiful sight. I used to stand below a shelving beach where most of the nests could be viewed *en masse*, and simply gloat over them. It is difficult to believe that anyone can feel the same thrill of delight over these same eggs when



A SANDWICH TERN, SHOWING THE LONG BLACK CREST



THE MALE SANDWICH TERN OFFERING FISH TO ITS MATE



A FLOCK OF SANDWICH TERNS

THE SANDWICH TERN

they are neatly arranged on cotton wool in tiny partitions. Half the delight is in the busy crowd of birds, with their brilliant grey-and-white plumage gleaming in the sun and wind. Sandwich terns are so busy and important with their swaggering gait and long black crest. They sit head to wind while they are brooding, and the long black cap lies smooth and tidy. The crest is raised when the birds are excited, and the long pointed feathers at the nape flicker in the wind. The males fuss round their mates and sometimes, owing to the close proximity of the nests, it is difficult for them to approach each other. They thread their way in and out by devious paths as direct approach is barred. With bended head and tossing crest they bring their offerings, which generally consist of fish for the sitting bird, or else some trifle likely to please her eye.

Almost every delicate shade will be present in the ground colour of the eggs. The markings vary from big brown splashes at one end to small dots scattered over the surface of the egg, while some are quite plain. The chicks, too, vary considerably in the colour of their down and also of the skin and legs. We tried to find out whether chicks hatched from certain eggs repeated the colouration of the eggs in their nestling down, but the weather interfered with these observations. Moreover, I had to leave in 1925 just as the young were hatching. In some cases the nestlings did repeat these colours, but our records were too casual to be of any value. As the result of a few general observations we came to the conclusion that more often than not the colouration of the egg is repeated in the down of the nestling. No two young are alike, and the differences in the colouration of the skin, beak, and legs are especially marked and vary from day to day.

Young sandwich terns are curiously lethargic. Nestling common terns run about almost as soon as they are dry, but the sandwich stays in the nest for two or three days and does not appear to move. This

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laziness is not much affected by weather, for even a mild sunny day fails to rouse them. They crouch low in the nest and close their eyes when observed, and their curiously flattened bodies look like toads. The nestling common tern is a rotund little creature and very much awake. The baby little tern resembles a wound-up mechanical toy which starts off at great speed and suddenly runs down. The nestling sandwich tern can move quickly enough if it is so inclined. One exceptionally lazy youngster was rather a joke amongst us. We interviewed it daily for a fortnight as it lay in the nest which was under a sloping board. As far as we could tell it never moved from its shelter till one morning I touched it gently, saying—‘Get up and take exercise you lazy little imp.’ It got up immediately and ran like the wind across the shingle.

Adult sandwich terns are not spiteful to the young of other sandwich terns, but they are not kindly disposed to isolated common terns, if these happen to nest here and there throughout the colony. Young sandwich terns are allowed to consort with their contemporaries. Sometimes several huddle together in one nest. In bad weather they scrape a hollow in sand or shingle and crouch together for mutual warmth and shelter from blown sand. During a ten days’ gale in June 1925 I found twenty-seven nestlings in a large depression which they had made beneath a big tuft of sea rocket. So closely were these birds packed, they looked like a soft woolly mat. They made no attempt to move all the time I stood and watched them. The sand was blinding, and the frail tufts of sea rocket seemed an inadequate protection. But they did hold up a certain amount of sand and made a tiny wall above the scrape. The adult birds single out and feed their chicks without showing any animosity towards the rest of the crowd. It is to be presumed that they know their own individual nestlings.

Blown sand is the great enemy of all young terns. It blocks up the eggs when they are chipping and prevents the young from emerging.

THE SANDWICH TERN

It gets into the nostrils and eyes of the nestlings and soon kills them. During the ten days' gale the mortality amongst all the terns was great. A good deal of drift-wood comes ashore at such times, and for hours on end people wander along the beach collecting this; thus for hours at a stretch, the terns were kept off their nests, so that the eggs and young were exposed to the full fury of the blast. We buried from forty to sixty young birds daily during those ten days. Visitors to the Ternery should if possible avoid such days, or else be content to stay only a few minutes near the birds.

I was absent during July and August 1925, but visited the Ternery on July 15th, when all the surviving young sandwich terns were massed on the far point. This most attractive crowd numbered about five hundred, just not able to fly. As my companion and I stole up to them they divided into three battalions and ran up and down a shingle spit that was still uncovered by the incoming tide. Then they stood shoulder to shoulder, motionless, in beautifully dressed ranks and stared at us. When we came too close they took to an inlet of shallow water and became three flotillas which swam away to another beach that was inaccessible to us. All the time they were swimming the old birds hovered over them, and the air was filled with their cries as they convoyed the young to this place of safety.

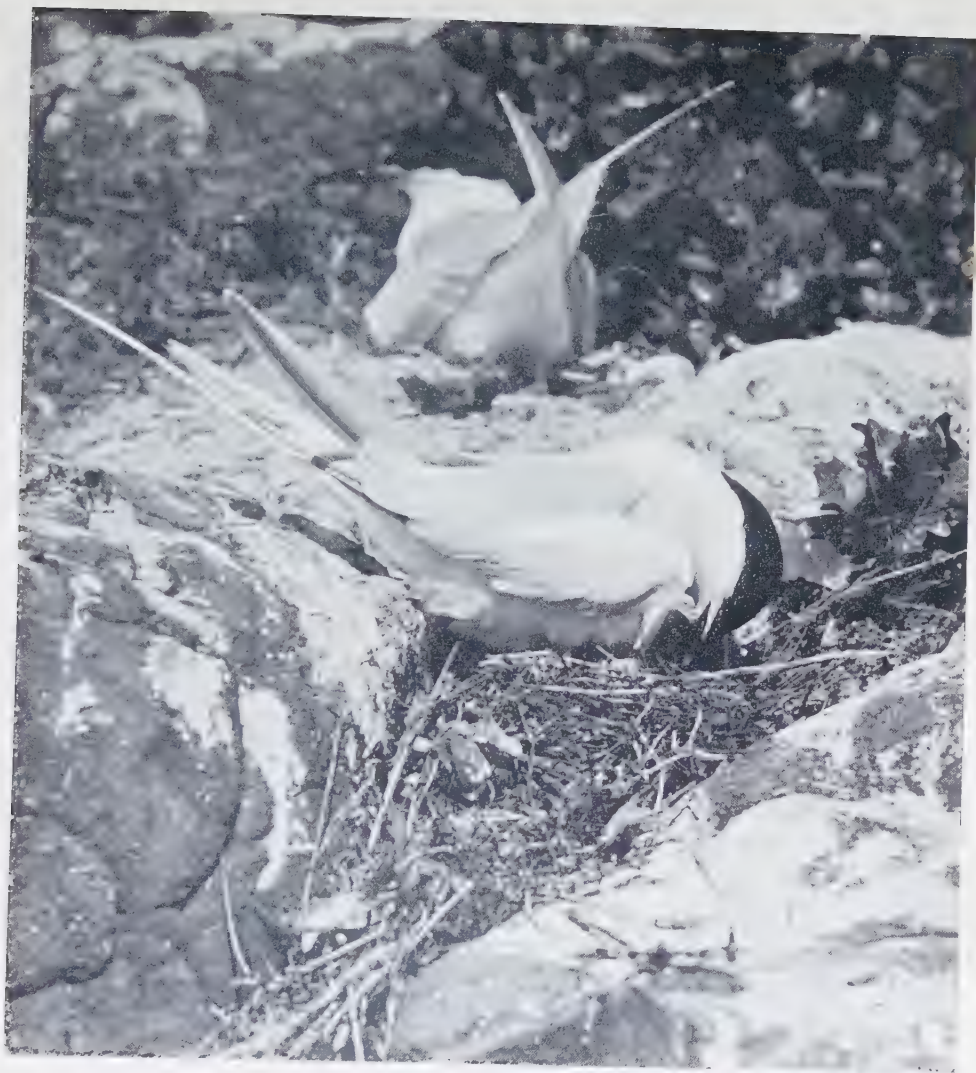
When I returned to Scolt Head on September 1st most of the terns had departed, but there were a few immature sandwich terns about and many passed throughout the month, and a few stragglers were noted up to October 11th.

By June 20th many adult birds were streaked with white about the head and presented a bald appearance. The black cap is a summer decoration only. In a strong diffused light the breast of the sandwich tern assumes a pinkish tinge, which is often more marked in this species than in the roseate tern.

THE ROSEATE TERN. *Sterna dougalli* (Montagu).

AS I was very keen to discover roseate terns in the colony and was unfamiliar with the bird, I asked Mr. B. B. Riviere to come over and help me to find them, and on June 22nd, 1924, we saw three roseates. They were taking long sustained flights and for some time would not settle. It was easy to pick them out from the crowd of other terns because of their lighter colour and the long tail feathers. These streamers are very striking, especially if the bird is flying before a gale of wind, when they double back almost to the tern's head. The roseate flush on the bird's breast is often less noticeable than the pink tinge on the breast of many a sandwich tern. In fact, what strikes one most about the roseate tern in flight is its pearly whiteness, as contrasted with the purplish tinge of the common tern. The call note is very distinctive. The flight is different from that of the common tern, which it resembles in size. It is more deliberately graceful; the roseate when flying at ease seems to *sail* along. The pearl-grey back is much lighter than the grey of other terns. The black bill is also a very distinguishing mark as the common and arctic terns' bills are red.

That year I wasted some days diligently hunting for the nest and eggs (which I had never seen) in the area where we first marked down the three birds. Eventually I found two strange eggs a mile away from this spot and, lying down, I waited patiently for the owners to return. I did not wait long for the two beautiful roseates; after making unpleasant remarks over my head they soon alighted by these eggs and one settled down to brood. The nest was a shallow scrape without any



ROSEATE TERN, SHOWING LENGTH OF TAIL



EGGS OF ROSEATE TERN



YOUNG ROSEATE TERNS. (SCOLT HEAD)

THE ROSEATE TERN

lining. The two eggs were distinct from any others on the Ternery, being longer than those of the common tern and evenly covered with small dark spots on a pale buff ground.

Both roseates took turns in brooding, but the larger share was undertaken by the female. They seldom evinced the nervous restlessness that characterizes terns in general. When the whole colony rose in panic about nothing the roseate remained quietly brooding. She would in fact let you walk within a few feet of the nest before she moved. But the male used to come along the shore to meet me as soon as I came within half a mile of his mate. He followed in my wake or circled round and round my head uttering his harsh cry, which is like a long drawn-out caw. He also loved swearing at me when I reposed in my sheltered hollow in the hills. The roseate had two other cries—the ordinary musical ‘kew-it, kew-it’ and a whistling note akin to the alarm note of the redshank. This was not often uttered; it seemed to convey a special warning to his mate. On one occasion in 1924 there was a third roseate standing by the nest, but this bird was promptly chased away.

This one nest was always a great anxiety to us as it was close to the line usually taken by stragglers along the shore. Fortunately it was very conveniently placed for observation. We always had to look out for people gathering drift-wood, and one or the other of us used to stroll casually to meet such, and by entering into conversation with them managed indirectly to lure them away from the danger zone. The male roseate generally took part in this game too. They both became extremely aggressive and courageous after the young were hatched. At certain states of the tide the fishing boats would anchor just off the beach while half the crews walked home leaving the remaining men to bring in the boats on the flood tide. One day Loose said to me: ‘There’s a tiernie I’ll do in some day; it’s a savage thing, I had to drive it away with my cap, next time it comes for me I’ll finish it off.’ I said: ‘You

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must not do that, for if you kill "Rosy" I shall get into an awful row and so will you.' It seemed a strange thing to me that a fine upstanding man, who looked as if his golden hair ought to have been covered with a Viking's winged hat, should have been afraid of a tern. After all, they do not do any real damage, as I pointed out to Loose. I also explained to him what an important person 'Rosy' was, and so enlisted his protection for the bird. Often roseates range far from their own nest. They do not hang round the female all the time, but fly out to sea in wide circles; therefore you could not tell from what part of the shore they would swoop to attack an intruder, but usually they are fiercest in the vicinity of the newly-hatched young. In 1924 the first nestling roseate hatched on July 16th, the second not till the 21st. There was a longer period than the usual two days between the laying of these eggs. Only one young bird survived. They are frail nestlings, feeble and inert. They have an untidy and bedraggled appearance, because the tips of the down are ensheathed for two or three days. After the third day they were nice fluffy balls and began feebly to walk about. Their legs are almost as stout as those of nestling sandwich terns, and this gives them an ungainly appearance, but they have none of the vigour of the common tern nestlings of the same age. The colour of the skin and legs was slate-grey. The down was blue-grey, so that they closely resembled the bluish pebbles of the beach. They pecked viciously when handled. I could distinguish the one young roseate when it was flying about with its parents. They all left in the middle of August.

In 1925 one male roseate arrived on May 14th and flew up and down the Ternery all day, uttering its call note, 'kew-it.' Evidently it was searching for a mate, and most of the time it carried the usual presentation fish in its bill. There was no sign of a roseate on the 20th, but two appeared on the 21st and the usual courtship display was

THE ROSEATE TERN

indulged in. At 8 a.m., and again at 7 p.m., the air resounded with the cries of these two birds as they wheeled for an hour or more. There was no sign of them between these times, for I was on the Ternery the whole day keeping a sharp look-out for them. As I have already stated, roseates indulge in long flights, often far out to sea or high in the air. The gleaming pearly plumage can be descried afar, but the birds disappear for hours. For ten days they played amongst some low sandy hillocks south of my tent, and misled me all that time. Two of us took it in turns to watch them all those days. One morning we marked them down to a certain spot where the male fed the female several times for three days. From our hiding place we could not see much of the female, but we carefully marked the spot from our point of view, and did not go near it for several days because we felt sure the nest was there. When you are lying down and observing a flat area through field glasses it is astonishing how that area widens out directly you stand up and begin to explore it. What appears as a foreshortened area with few landmarks visible suddenly becomes a big expanse with nothing distinctive about it. Even tiny mounds look alike. However, we had one stone as a guide, and although there were several common terns' nests near this, we at last found one egg which was identical with the previous year's roseate eggs. This was on May 28th. On the 31st there was a typical common tern's egg beside it at 8 a.m., and a common tern alighted and began to brood over both. Our hopes were dashed, for we could not tell whether or no both these eggs had been laid by one bird. Having satisfied myself that there were no more roseate's eggs in that spot I at once settled down to watch for the birds elsewhere. As I crawled up the sand-hills I saw a roseate alight about twenty yards from the last year's nest. Running to the spot I found one egg, but no pretence at a nest. On June 2nd the second egg was laid. I then fetched the freak egg from the common tern's nest and compared it

BIRD WATCHING ON SCOLT HEAD

with these two. In shape, size, and markings it was identical, or as much like them as one egg can be like another. So we kept that common tern's nest under special observation. Eventually, young common terns emerged from both these eggs. This shows how impossible it is to identify a nest of the roseate tern from the eggs alone. One day a visitor who specializes in terns' eggs came to see the nest. When he saw the eggs he exclaimed, 'Those are not roseate's, I wouldn't have them in my collection.' The ruffled watcher walked away, saying, 'Come over here,' but otherwise maintaining a dignified silence. We went to a distant spot from which the birds could be seen through glasses. In a few minutes they hung over the nest and one settled down upon the eggs. The light was good for seeing roseates to perfection. In this strong diffused glow the sitting bird's breast flushed rosy red as if it had been touched by a ray of sunset. An exclamation of delight burst from my doubting friend and ample apologies were forthcoming.

The first egg hatched on June 24th, during a raging northerly gale which lasted for several days. This bird disappeared on the 26th; probably it died. The second egg hatched on the 27th, and the nestling was quite healthy when I left on July 3rd. But when I paid a flying visit to the Ternery with a friend on July 15th there was no sign of the roseates, young or old. As no one had been in charge I could not find out what had become of them.

THE REDSHANK. *Tringa totanus* (Linn.).

A GOOD many redshank nested in the sand-hills. This to me seemed strange at first, as I had hitherto only been familiar with them in marshy places. I am not good at finding redshanks' nests, but my dog Bogey was excellent. He would stop short with one foot raised and tail quivering till I came up and saw the sitting bird. As a rule redshank sit tight and let you look at them, but one bird which nested in the middle of a small colony of terns was very shy. The restless terns seemed to infect her with panic. Sometimes her mate showed considerable annoyance when she stayed away too long, and brooded over the eggs spasmodically. In the end he would chase her over the shingle and with much scolding and jerking of the tail literally drive her on to the nest. Eventually she brought off her brood, which astonished me !

One nest was most beautifully domed. The tall marram grass overhead was intricately woven into a kind of inverted basket. It was the best domed redshank's nest I have ever seen. On May 5th we found one quite open nest with four eggs on the edge of the beach in ' Yellowstone Park,' just above the tide line. This hatched on May 18th in spite of the fact that most of us had to pass it several times a day.

As soon as the young can run they are taken to the saltings and lesser creeks. I have seen families of quite tiny redshank waiting for the turn of the high tide just below the hut. They are often brought up into the marrams during the spring tides. The old birds are then very fussy and bully the terns if they swoop down near the young red-

BIRD WATCHING ON SCOLT HEAD

shank. Sometimes one of the parents will chase the terns a long way. Immigrant redshanks appear in mid-June. Often they arrive in what seem to be just family parties, parents and two or three young together. Sometimes small flocks of mature birds only come in ; frequently, however, the flocks are mixed—old birds and birds of the year. By September there are large flocks feeding on the saltings with curlew and other waders. One September day, when a strong north-west wind was blowing, numbers appeared between 6 and 7 p.m.



A REDSHANK FEEDING



OYSTER-CATCHER COURTING

OYSTER-CATCHER. *Hæmatopus ostralegus* (Linn.).

IN 1924 six pairs of oyster-catchers bred between the Ternery and Plover Creek; we did not explore the ground further east. Two pairs had taken possession of their breeding areas by April 7th; the other four soon followed suit. Small parties of non-resident birds might be seen at intervals up to the end of May.

The first two nests we stumbled upon, the others required some finding. The eggs resemble large blotched pebbles and they may be laid in a mere scrape, but some nests are elaborately lined with broken shells, usually cockle shells. One nest, however, was lined both years with broken pale blue mussel shells. It was rather the fashion on Felter Skipper's beach to make use of these decorative chips, but they made the nests both of the oyster-catcher and ringed plover rather conspicuous. A number of false nests are often carefully lined, while the real one may be quite bare. One would like to know why some oyster-catchers take great pains to decorate the nursery while others are content with bare shingle.

I once watched an amusing courtship of a pair of oyster-catchers. The male pursued the female up and down a stretch of water for hours at a time. She pricked her way daintily along the edge of the tide, stepping high and sometimes walking at a great pace, while the male followed subserviently in her wake. All the time he whistled his melodious love song and adapted his pace to hers. But now and again she put on speed and then suddenly stopped dead, so that he cannoned into her. This upset him considerably; he turned and stood still,

BIRD WATCHING ON SCOLT HEAD

gazing rather abjectly across the water. She would then cock her head on one side and give a kind of chuckle, then start off again. So up and down the shore she led him this dance during two days. If *he* stopped of his own accord, she turned her head and eyed him askance. On the third day they were walking about amicably together. It seems to me that one reason why birds are so coy is because there is plenty of choice. There are always numbers of un-mated birds about of both sexes. This is markedly the case with oyster-catchers. Flocks of eighty to a hundred frequent some shores during the breeding season. They form bachelor clubs and spend their time gossiping to each other, or they have mimic fights; but most of their spare time is spent in sleep. I have tried to follow these parties with a camera. They let you come within a certain distance and then quietly move on. They advance so smoothly that there is little apparent movement, but they manage to keep just out of range. In many ways they are most aggravating birds, and always seem to know when they have diddled you. Their brilliant ruby eyes almost wink, and their chuckle is an epitome of complacency. At least that is what I feel after a fruitless hunt for a nest, when the birds follow me along for half a mile saying things all the way. They are very handsome with their bold pied plumage, red legs and bills, and most graceful. The ruby eye in its black setting is peculiarly expressive. They are extraordinarily wary, and the male will lead you a pretty dance if you are innocent of his intriguing ways. When he has fooled you satisfactorily he will suddenly fly away, uttering his derisive cry. Oyster-catchers are also very long-sighted. A sitting bird will quietly walk off her nest the moment she catches sight of you, though you may be a quarter of a mile off. The watchful male patrols a wide area and gives the alarm with a single sharp note. Then both birds casually stroll about, pretending they have no nest and never dreamt of such a thing. I sometimes wonder why the eggs ever hatch, for on some days one



“GAZING ABJECTLY ACROSS THE WATER”



CHANGING PLACES

OYSTER-CATCHER

oyster-catcher which nested close to a well-used landing place was constantly disturbed, and sometimes remained away for two or three hours ; yet she brought off her young successfully each season.

Another pair spent a great deal of time together on the shore. Every day we said : ' When *are* they going to nest ? ' and eventually, walked almost on to their well incubated eggs on the other side of the sand-hills. Oyster-catchers are seldom fussy about their nests ; their idea seems to be that the camouflaged eggs can take care of themselves. But never for a moment do they lose sight of the intruder. Towards the end of the incubation period the female sits close, and if put off the nest she stands on a hillock, uttering a short sharp cry.

The eggs are laid on alternate days. The nest on the area we called Yellowstone Park contained one egg on May 19th ; by the 24th there were four eggs. On June 17th at 9 a.m. the chicks were feebly cheeping, all together, inside the eggs. Up to 10 a.m. on the 20th they were still cheeping, rather loudly by that time. At 8 p.m. all were hatched. The Ternery nest also contained four eggs by May 24th and hatched on June 19th. Another nest contained one egg on May 27th, and four subsequently, two of these hatched on June 28th ; the other eggs were forsaken as the bird was disturbed by gunners.

I used to bend down over these eggs for a few minutes and listen to the chicks feebly rapping at the doors of their prison house. It is a mystery that has appealed to all generations. ' The chick within the egg, thou givest him breath inside it to impart life to him ; thou givest him his complete form so that he breaks it from within, and when he comes forth he chirps with full force and he runs on his feet when he comes forth.' Thus wrote Tutankhamen's successor in his beautiful hymn to the Sun God thousands of years ago. The pace these young oyster-catchers run on their feet when they come forth, and the full force with which they chirp is wonderful. Some years ago I reduced

BIRD WATCHING ON SCOLT HEAD

Mr. T. A. Coward to a limp rag in his efforts to round up a half-grown chick for me to photograph. When both were exhausted, the former laid down in the *suaeda* bushes, and the latter crouched on a patch of sea-weed, where it was almost invisible, so closely did its plumage blend with the sea wrack.

The young were all taken to the saltings adjacent to their breeding areas and ran about the mud flats at low tide. Oyster-catchers do not catch oysters, but they feed largely on cockles and mussels.

Early in September numbers of oyster-catchers came in, and by the 8th there were 150 on the far point. Throughout October and November large flocks may be seen at various points on the coast. They sit head to wind on some bare bit of shingle, and as soon as the tide ebbs they gradually work towards the mussel scalps, where abundance of food can be obtained. Even in the late summer and early autumn oyster-catchers indulge in noisy games together. These, then, seem to have nothing to do with the courtship display. They draw up in lines, advance and retreat, bowing to each other, and uttering wild musical cries. Sometimes they stand still and keep up an incessant chatter, merely lowering and raising the head as they talk. Sometimes they make passes at each other. It seems harmless and amusing, and doubtless birds must do something to fill up time between the tides. These games are indulged in by non-breeding birds during the summer as well as by the mixed autumn flocks.

In the summer of 1924 there was an aviation camp at Holm. During the night manœuvres searchlights often swept the island as well as the sky. They roused all the sleeping birds, especially the oyster-catchers and curlews. The former flew in a bewildered manner to and fro, making the quiet night ring with their wild cries. It was a new experience to find that the imperturbable oyster-catchers could really be roused out of their usual complacent calm. They soon settled down,

OYSTER-CATCHER

and peace reigned till the next flash came. They were few and far between these low flashes, but it was worth while sitting up for them, because they awoke various waders. Sometimes an unsuspected bird gave itself away with a startled cry. The curlews were more disturbed than any other birds; they flew round and round for a long time, whimpering like lost spirits. We had no idea that there were so many curlews on the marshes at night.

THE COMMON SHELD-DUCK. *Tadorna tadorna* (Linn.).

BY far the most interesting sight at Scolt Head in the early spring is the great crowd of sheld-duck. They are at the height of their courtship display in April, when numbers collect in certain quiet places and indulge in tournaments of a kind. Sometimes a double row of drakes will advance towards each other with lowered heads and open bills, arched necks and outstretched wings. The preliminary steps are slow and stately, but gradually the pace quickens. When the two lines meet, the wings are raised and arched, yet pressed close to the body. Then the neck is suddenly thrust forward like a couched lance, and the drake which gets the first thrust home throws up his head vertically. This seems to show that he has scored a point. He then moves his head rapidly up and down with sinuous twists of the neck, so that the latter seems to form a series of loops. Sometimes these sham fights take the form of duels, while the rest of the company run about making remarks. But whether the game takes the form of a duel or becomes a general *mêlée*, it seems entirely lacking in envy, hatred and malice, or any uncharitableness. It is a beautiful game to watch and also amusing. The sheld-duck's upper mandible curves upwards, and when the brilliant red bill is wide open as the birds rush squealing at each other their whole expression is irresistibly funny. Unlike most species of duck, both sexes are gaily coloured and not clumsy in their gait when they are walking. Not only is their bold pied plumage beautiful, but their movements also are graceful. Displays of prowess sometimes take place on the water, and then they are very noisy affairs. In addition to the



THE WATCHFUL SHIELD-DRAKE



SHIELD-DRAKE

THE COMMON SHELD-DUCK

hoarse cries of 'Kak, kak, kak,' there is loud splashing and the swish of rippling water as the birds cut their way through.

On one of our very first walks towards House Hills we suddenly dropped down into a little inlet between two groups of sand-hills and surprised between fifty and sixty sheld-duck engaged in mimic warfare. There was scarcely an inch of wet sand untrodden by their feet. Always, from that time onwards, we called this inlet 'The valley of the sheld-duck.' It was a favourite playground throughout the spring and early summer.

There were nineteen pairs in the immediate vicinity of the hut, and throughout April and May these thirty-eight sheld-duck met soon after sunrise and indulged in their games. We had to watch them from the hut windows, for as soon as a head appeared over the grass the company melted away. They met again in the evenings for further displays. The drakes were more or less gregarious every morning and evening until the young hatched.

During the days while the ducks were brooding the drakes dozed below the sand-hills. But, whether asleep or awake, they were very vigilant. You cannot catch a sheld-drake napping, for they are alive to every movement in their vicinity. As soon as they catch sight of an intruder they utter a sharp 'kak,' which seems to convey a warning to the duck. This note is softened to 'kek, kek' when the drake circles round the nesting place and invites the duck to come out and feed. When both duck and drake fly round together the note is a soft musical 'sosthieu, sosthieu.' This note is curiously sibilant, like a gentle breeze in the marram grass, and akin to the whistling sound made by the bird's wings.

The sheld-duck is very secretive all the time she is brooding. She seldom walks straight to the nesting hole, but winds in and out of the marrams by devious paths. Sometimes, however, she flies straight into

BIRD WATCHING ON SCOLT HEAD

the hole, if it is suitably placed for direct flight. Then there will be a faint mark at the entrance where her tail touches the sand. Footprints round a hole are seldom proof of a nest. The birds are far too wary to leave such incriminating evidence. Where we suspected nests, we smoothed the sand immediately at the entrance of a hole and then watched for the faint impression made by the duck's tail. If you gently insert a walking-stick with a curved handle into the nest while the duck is brooding, she will hang on to it like grim death. If you cease to tug she quickly drops her end of the stick.

I only once walked on to a sheld-duck in the act of bringing her newly-hatched brood away from the nest. I caught four of the young, but the rest were hustled back into the hole amid noisy protests from both parents. I placed the four nestlings on the ground and they, too, vanished into the tunnel. The drake swooped down upon me with harsh cries. I walked a quarter of a mile away and considered that I had hidden myself well in the hills. But that drake knew my whereabouts, and after an hour's fruitless watching on my part, during which he constantly uttered warning cries, he suddenly flew to the hills, circled round the nest, calling gently, and then disappeared over the edge of the hills on the sea side. In all probability, the duck, being advised of danger on the marsh side, changed her plans and led her brood down to the seashore.

Several times, when we were sitting at breakfast, we saw young broods being led down to the creek. The little brown and white ducklings generally run in a line one behind the other, with a parent at either end of the *queue*. If they spread out in an extended line, still the old birds form a guard on either side. The line is more or less a zig-zag, for the ducklings run very fast on this their first great adventure. This sinuous movement of the little mottled bodies over the mud flats resembles a snake's writhing. They are soon lost to view in the rough



CANADA GEESE AT HOLKHAM



GULLS IN FLIGHT

THE COMMON SHELD-DUCK

maritime vegetation, and quickly slip into the tiny creeks which lead to the big creek. As the broods hatch out, they collect in the creek, where old and young seem more or less gregarious. The sheld-drake is the only one of our British drakes that takes an interest in his brooding mate and the family. All our other drakes leave the duck as soon as she begins to brood. Both parent sheld-ducks remain with the young until they are able to fend for themselves. Most of those hatched on the island frequent Norton Creek until they are full-grown. If you approach them by boat, they either dive or else scuttle out of sight up the little runnels which intersect the marshes.

Sheld-ducks nest also on the mainland uplands, and it is not an uncommon sight to see a family party being hurried down the main road and across the village street to the comparative safety of the saltings.

In the autumn numbers of sheld-ducks sit about on the mud flats at low tide. Birds of the year are dingy looking, for they lack the brilliant chestnut and glossy black and white of the adult birds.

When a pair of sheld-ducks take wing, the duck always forges ahead while the drake drops behind. I do not know if this is characteristic of ducks in general, but it is most marked in the sheld-duck.

THE SMALLER PASSERINE BREEDING BIRDS.

THE small bird life on the island is limited to a very few species. No thrushes or blackbirds nested there during 1924-5, as far as we could ascertain, though there was an ancient and derelict song thrush's nest in the big thorn bush at Overy end.

SKYLARK. *Alauda arvensis* (Linn.).

Skylarks nested in the marrams and on House Hills in numbers. It was only before sunrise that one realized how numerous they were. All the poetry that has ever been written fails to describe the rapture of this unaccompanied Hymn to the Dawn. First one bird would 'pierce with its song the dark,' and continue singing alone for a minute or two. Then other larks in twos and threes awoke from their sleep, climbed up the sky singing as they rose, till by and by scores and scores joined in the hymn. Long before the actual sun rose out of the eastern sea the song died away. Sometimes it ceased suddenly and the silence could then be felt, for even at Scolt Head the winds are often asleep at dawn. Sometimes the singing just faded away gradually. The skylarks sang their best during April and May, but there was hardly a day when all were quite silent.

MEADOW PIPIT. *Anthus pratensis* (Linn.).

Meadow pipits were so numerous as breeding birds that we often had great difficulty in avoiding their nests. They preferred to nest on the edge of the tracks which meander through the marrams along the



A MEADOW PIPIT AND YOUNG



THE MALE LINNET



AND THE HEN-BIRD



PIED WAGTAIL

SMALLER PASSERINE BREEDING BIRDS

hills, as the rough stuff is thinner and less coarse than it is on the slopes and in the valleys. The birds liked to patter along these trodden paths where the going was easy and where they could pick off insects from the rough edges without much trouble. They also nested all over that area of House Hills which we called the 'Tundra'; here, too, the grass was short and food plentiful. They were badly victimized by rooks and crows. A rook would pick out a nestling, flop down to the marsh and devour it, then return to the nest for another young bird, and continue raiding the nursery till the whole brood had been devoured. The parents never took these raids quietly, but fluttered round the marauder uttering shrill cries. Often they essayed to beat the rook with their tiny wings, all to no effect. The grim black giant, remorseless as Fate, and as blind, merely fulfilling his own destiny, calmly ate the nestlings one by one. The watcher's interference was in vain, for when once a rook has spotted a nest it will return again and again to its prey. You may beat it off one day, but it will return when you are not there to champion the defenceless.

LINNET. *Acanthis cannabina* (Linn.).

Linnetts nested everywhere, sometimes in the grass, but most frequently in the *suaeda* bushes. The cocks were invariably brilliantly coloured. It seems to me that this is always the case with linnets which nest near the sea. Inland breeding birds are seldom so gorgeously crimson on the breast. This difference, however, may be merely imagination on my part, or due to atmosphere and the quality of sunlight near the sea. I remember as a small child being choked with emotion and almost reduced to tears at the sight of a cock linnet in my inland Kentish garden. Maybe it was the first linnet I had ever seen in all the glory of its spring attire.

The clear sweet song of numbers of linnets, especially after dawn

BIRD WATCHING ON SCOLT HEAD

and in the evening, was some compensation for the dearth of bird song generally on Scolt Head.

Linnets had taken up their breeding areas when I arrived in April. They were not much in evidence after July, but throughout September and October there were great passage movements from east to west. They passed in flocks together with other finches, skylarks and pipits.

PIED WAGTAIL. *Motacilla lugubris* (Temm.).

Pied wagtails nest sparingly on the island, generally in the long marram grass overhanging the tops of the sand-hills. There was one nest in a tuft of marram near my tent. It was very well hidden. The birds scraped a hollow in the sand and built a very large nest, the entrance to which consisted of a tunnel through the grass nearly a foot in length. Pied wagtails were not numerous even as birds of passage.

Pells told me of a pair which nested in the stern of his boat, in spite of the fact that he put to sea occasionally. The hen sat tight during the brooding period, and when the young were hatched both parents followed the boat and fed the young. Of course these inshore fishing boats do not go far out to sea.

YELLOW WAGTAIL. *Motacilla raii* (Bonop).

Yellow wagtails were fairly common as passage migrants. Only two pairs nested in 1924. Both nests were east of House Hills on slightly elevated ground which just escaped being covered at the spring tides. Both broods hatched in safety. We found no nests in 1925.

WHEATEAR. *Oenanthe oenanthe* (Linn.).

We failed to find wheatears' nests in either year, but strongly suspected that one or two pairs nested east of House Hills as there were

SMALLER PASSERINE BREEDING BIRDS

young birds about in June. Wheatears were very numerous as birds of passage up to mid-May and occasional birds passed up to June 8th. Throughout September and October family parties were constantly passing ; they stayed for a few hours only. Sometimes large parties of old and young fed on the shore early in the morning, but seldom remained all day.

AUTUMN MIGRATION.

SCOLT HEAD as an observation post has many advantages. It is isolated, and being the highest sand-hill on the coast it commands an extensive view over a wide area. When the October diurnal migration is in full swing you need not wander far, for birds stream past the Head. Early rising is essential, because although passage movement *may* go on all day, the bulk of birds pass between 7 and 10 a.m. As in the spring, so in the autumn, the greatest passage movements are from east to west. In the autumn this stream of migration must ultimately turn south—a part of it at any rate—probably up the Ouse and Nene valleys to the Thames and so across to the coast of France.

Birds travelling from east to west past Scolt Head first come into view over Holkham Woods. The various flocks within our range of vision follow definite fly-lines, and these radiating from Holkham spread out fan-wise towards the west. One line stretches from Holkham Bay towards Skegness, on the Lincolnshire coast, the second crosses the sea in the middle distance, the third follows the edge of the tide, a fourth takes the line of the sand-hills, a fifth follows the creek, and a sixth keeps to the mainland uplands. Most of these lines converge near The Wash. The first two are difficult to follow as they are far-flung. Sometimes birds of one species migrating on a wide front move simultaneously along all these lines at once ; for the most part, however, they come along in streams, or small parties, and take one or other of these six flight-lines. There is also occasionally at the same time a cross migration from north to south of birds coming straight in from the sea.

AUTUMN MIGRATION

Migration to the student means much more than merely dashing to the coast to see a rare straggler. When it is seriously undertaken it is no light task. The observation ground must be gone over daily *at regular hours regardless of weather* : often the best results are obtained in the worst of weather. Sometimes it is sheer drudgery. Such was the case during the first fortnight of September 1925. We rose at dawn and went the usual early morning round of two-three hours in search of the small passerine birds which are mostly nocturnal migrants. The prevailing winds being westerly few birds were driven in or dropped down for food and rest. Our only records for that fortnight were one willow warbler, one garden warbler, a few hedge sparrows, and reed buntings and one bluethroat. Two or three wheatears arrived daily, the greatest number on any given day being thirteen on September 1st. Of other chats we only saw five redstarts, three whinchats, and one stonechat. On September 22nd, 1924, two male stonechats appeared in front of the hut. In 1925 another came on September 24th.

Wrens appeared continuously between September 15th and October 25th. A few remained stationary, taking up their positions almost at once. It is very difficult to flush these tiny migrants, and we should never have seen them but for my terriers. They flushed them from the marrams overhanging the sand-hills on the sea side ; from the dense marram grass on the Long Hills, and from the few bramble-bushes everywhere. There were numbers, too, in the thicker *suaeda* bushes overhanging Norton Creek, and at the Overy end.

We must have struck two bad years at Scolt Head as far as these small passerine birds were concerned, the prevailing winds being westerly. There were, however, five days in 1924 (August 31st to September 4th) when I realized what might happen under favourable conditions. During those five days every shingle spit below the hut

BIRD WATCHING ON SCOLT HEAD

and towards the far beach was covered with chaffinches, wheatears, redstarts and whinchats, while our favourite bushes were full of pied flycatchers and warblers of many kinds. The wind during that time was easterly. That numbers of birds also passed up Overy Creek I have no doubt, as the mainland hedges were full of them. The flocks of chaffinches consisted either of all males, or all females ; the sexes seldom seem to migrate together.

As I have already stated, a great deal of our daily round became at times mere drudgery, and I cannot speak too highly of the energy and loyalty of my chosen helpers. An area of 1200 acres needs four people really to work it satisfactorily. To my mind the unique opportunities offered by Scoln Head for the study of migration are of extreme importance and offer a far wider field for research than the mere guarding of the breeding birds. We know so little really about the great mystery of migration, but every little bit of careful work may send a ray of light into the darkness.

There were not many days throughout the autumn migration of 1925 when we missed hunting the island from Brancaster Creek to the east side of House Hills, together with the intervening marshes. Once a week we did the whole round—across Norton Creek to Deepdale Mere, along the wall to Overy, across Overy Harbour and back by the shore.

It was always a matter of regret to us that we could not visit that east end oftener. From information received I gather that some of the rarer waders come up the Overy Channel to the fresh-water marshes and swamps at its head. As in the spring, so in the autumn the favourite haunt of warblers and chats was the east side of House Hills. Each spring and autumn turnstones and grey plovers frequented one or two widely separated areas of salt marsh. Birds passing along the sea, too, could generally be found feeding or playing about in certain favourite

AUTUMN MIGRATION

stretches of water. Grebes and divers we always looked for on the sea opposite Smuggler's Gap. Skuas also were best seen from that point, though sometimes exhausted skuas were resting on the mud flats near the Ternery. Sanderlings were most numerous either near the Ternery or off Smuggler's Gap. I know of no more adorable sight than a number of these little waders feeding at the edge of the tide. They themselves are like bubbles of foam and hardly to be distinguished from the wash of the last wave which has swept them up. 'Snowdrops' is the local name for sanderlings, and very white they look in winter plumage. We were seldom at our best in the early morning as we stumbled sleepily down the hill to the shore, but the sight of the sanderlings' tiny twinkling feet and gleaming pearly bodies, together with the pageant of dawn on the seashore and sand-hills always restored our good humour. One or the other of us would invariably exclaim—'It is worth while getting up after all.'

In bad weather it is often necessary to find some shelter if possible. You cannot use field-glasses when you are lashed with rain as with a flail and blinded with blown sand, or if a drizzling mist fogs the lenses. Then the only thing to do is to lie down under a bush if there is one, or a tuft of marram, and shield your eyes with both hands. It sounds dismal, but enthusiasm renders the observer unconscious of the rain that is trickling through every joint of his armour. When visible diurnal migration is in full swing it is apt to be so thrilling that one's pulse beats like a sledge hammer and so warms the skin, but is apt to blur what little vision is left.

Birds crossing the water at a low level are always difficult to see—an inky smudge moving rapidly over the face of a sullen sea, that is all you can distinguish a few miles out. But in a few minutes this smudge becomes definitely visible and may resolve itself into anything. A flock of large passerine birds advancing and passing overhead with steady

BIRD WATCHING ON SCOLT HEAD

purposeful flight is easily identified. But a bunch of waders coming in at top speed is out of sight in a few seconds, and you are grateful for any startled cry or flash of colour which helps to identify them.

It is surprising how small a thing will afford shelter to a weary bird. One very rough day a certain shingle spit was covered with wheatears. The *suaeda* on this spit was sparse and rabbit-bitten to within a few inches of the ground. Yet each tiny tuft sheltered a bird. With their breasts pressed close to the ground and their backs against the *suaeda*, they crouched apparently quite contented.

One very wet October afternoon we were all feeling a bit 'edgy.' Our morning rounds had drawn a blank. So I said 'Let us go out and get wet.' We plodded along the shore taking our pleasure sadly in the drenching rain, finding nothing, till as it was getting dusk we returned along the inside of the Long Hills wondering why on earth we *wanted* to do this kind of thing. Suddenly a little bunch of five curlew sandpipers got up at our feet. We almost trod upon them, for they were crouching low in the sea purslane. They were all buff-breasted birds of the year, and so tame they just ran along before us like barndoor fowls. They fed as they ran and uttered a low musical twitter. Now and again one bolder than the rest stopped dead in front of us in order to snap up some tit-bit. We could not see what they fed upon, but as they kept to the edge of that marsh for several days food must have been abundant, as seemed to be the case generally after a high tide. The next day I tried to photograph the curlew sandpiper, but after a night's rest they were more wary. Sometimes immature curlew sandpipers reach our shores in August. The adult birds breed in arctic Siberia, so that these early arrivals cannot be much more than six weeks old when they start on their travels. Their range is immense, as they winter as far south as the Cape, and even in Australia. So on that



THE COMMON SANDPIPER



SANDERLINGS FEEDING

AUTUMN MIGRATION

dismal afternoon we felt well repaid for our drenching. Only the bird lover can understand the thrill that a little episode like this arouses in him. These five intrepid voyagers were to us the embodiment of poetry and romance.

Few people realize that the autumn migration begins in early June, that is directly the first broods are on the wing. During the first weeks in June in both years the first flocks of young lapwings began to come in, and redshank about the third week. Sometimes there appears to be an overlap in migration. While these young broods were coming in, dunlin in full summer dress had not yet left for their northern breeding quarters, and swifts were still passing up to June 21st. The wader migration is further complicated by the presence of immature and non-breeding birds which throughout the summer move from one feeding ground to another.

There is hardly a week in the year when birds are absolutely sedentary, always there is movement of species if only you have eyes to see it. The bulk of waders are on the move during the third and fourth weeks of August. I have notes of redshank, dunlin, ringed plover, spotted redshank, curlew, and greenshank passing over Cambridge during the last week of August. Sometimes they are heard all night long from 9 p.m. onwards.

Shore larks were numerous from October 7th onwards. If you want to see shore larks at their best you must conceal yourself near one of their feeding grounds. On Scolt Head they were to be found in one of three places. The best feeding ground from the observer's point of view is a narrow bight that runs up between the main sand-hills and the Ternery. Here you can lie and watch them all day as they search for food amongst the vegetation which has been covered at the spring tides. This is also a favourite feeding ground of snow buntings. In 1925 a small flock of snow buntings alighted in this bight on October 31st.

BIRD WATCHING ON SCOLT HEAD

The shore larks resented their intrusion, and the next day I saw several of them rush at the snow buntings with angry gestures, puffing out the so-called 'horns' over the eyes and raising the feathers of the crown. They are very attractive birds, easily overlooked when they are feeding amongst maritime vegetation. At Scolt Head they were fairly tame, but when they were startled they flew up in a bunch uttering a distinctly wader-like call note, not unlike that of the common sandpiper. This note was often uttered on the wing as they passed over with skylarks; the two species sometimes travelled together going west.

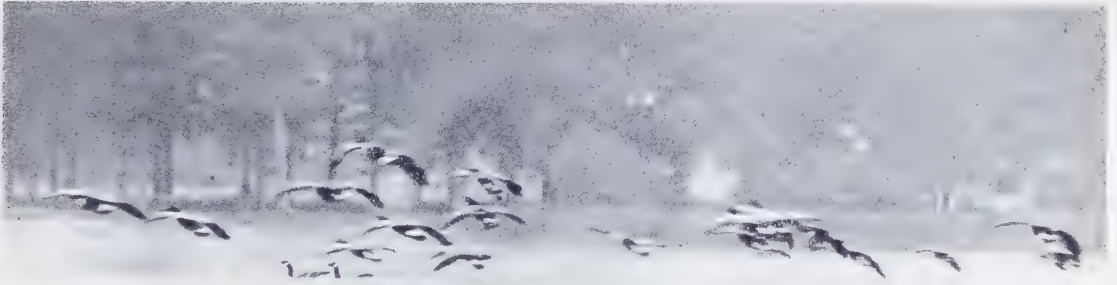
There were no large flocks of snow buntings in 1924-5. The first I saw was a freshly killed bird, the wings and tail only remained. During the first week of November 1927 there was a great influx of snow buntings. Every day a large flock fed below the hut, while numbers frequented their favourite feeding ground near the Ternery. One very tame hen bird we followed along the shore; she let us stand over her and watch her feeding on the small black seeds of *Arenaria peploides*. When they are resting or feeding on the shingle, snow buntings are almost invisible. On the wing as they whirl about in the sky the white patches on the wings of the male birds are very conspicuous.

In 1925 waders of all kinds came in numbers from the middle of September. Dunlin, ringed plover, golden plover, redshank, curlew, and oyster-catchers might on some days be counted by hundreds. Many of these flocks passed on and were replaced by fresh arrivals. Oyster-catchers especially varied considerably in numbers.

The number of lapwings moving from east to west when there were big rushes seemed absolutely incredible. For days together this immense migration continued without a break, though always the largest flocks passed in the early morning. The direction of the wind seemed to make very little difference to these big rushes, except that with an easterly wind the birds flew higher up. The slow flickering flight of



A WATCHFUL DUNLIN



CANADA GEESE FLYING IN AT DAWN



THE OYSTER CATCHER CLUB

AUTUMN MIGRATION

the lapwing can be identified for long distances. Sometimes they came in from the sea and continued southwards, especially on days when the wind blew from the south-east. October 20th was a memorable day. A south-easterly gale had raged all night and had not abated at dawn ; rain fell in pitiless fury and stung like whipcords. I struggled to an observation post which commanded several routes, and lying down I shaded my face with my hands. There was no east to west coastal movement, but many species were coming in from the sea. The behaviour of the lapwings was curiously interesting. First came two small flocks, from which one exhausted bird dropped on the shore below me but in a few seconds wearily rose and followed the others south. Several large flocks which I spotted far out in the north-east as mere black lines low over the sea rose suddenly high into the air as soon as they reached the shore and circled spirally upwards ; they then divided, some flew due south, while others followed the tide-line westwards. Flocks of finches behaved in exactly the same manner.

There is always great excitement when the woodcock come in. They are expected with the October moon, especially if an easterly wind prevails. Then all the shore shooters are alert. As woodcock arrive singly or in twos and threes and immediately seek cover, they are difficult to see. Even when you know that a bird has dropped into the marrams you may scour that area and not flush it. As a rule they do not reach Scolt Head till dusk. The majority of birds pass over the island to the wooded uplands on the mainland. There was no great passage movement west of larks and finches till September 14th. From that time and throughout October skylarks passed in incredible numbers regardless of wind or weather. As a rule they travelled in little bunches of from three to seven, but often singly. From October 20th onwards there was a cross migration from north-east to south-west. Skylarks coming straight in off the sea crossed the island and made for the up-

BIRD WATCHING ON SCOLT HEAD

lands. On some days, with a following wind, they flew high up, about 200 feet, but when moving against a dead head wind they beat against it so low down that sometimes they almost flew into my face as I crouched in the sand-hill.

It made me tired to see these small intrepid birds beating thus against the wind. On days when there is big movement one gets strung up to a great pitch of excitement. Having beaten my own way against the wind for a mile, to the actual point where the larks crossed the channel, I sometimes cried out involuntarily, 'Oh, stop, stop; why should you not rest?' When following the tide-line, buffeted by the wind from the sea, these skylarks sometimes flew so low that they only just cleared the water. On such occasions numbers probably perish, as an extra big wave must surely overwhelm them.

Finches, including linnets, buntings, and tree-sparrows, passed in hordes. They resembled a cheerful bank-holiday crowd, for under favourable weather conditions they twitter continuously. As a rule they flew from east to west, but after October 20th there was also a cross migration from north to south.

We saw very few passing swifts in September 1925, the last record for the season being five on the 30th. Throughout September and up to October 6th, swallows, martins, and sand-martins passed continually from east to west, the prevailing wind being westerly. I never saw a single hirundine flying from north to south. The autumn migration was more leisurely than that of the spring. Sometimes the birds flew around the Head chasing flies, or whirling round each other in mere joy. On September 18th and 19th the flocks consisted mainly of birds of the year, though there were a few adults with them. On the 25th, 27th, and 28th they were nearly all mature birds. September 13th and 14th were two wonderful days in spite of a north-east wind. They were so warm that we returned to thin cotton clothes and really basked



A GOLDFINCH FLIES IN MID-AIR



BLACK-HEADED GULLS CHASING INSECTS

AUTUMN MIGRATION

in sunshine. We were tired and depressed after a fortnight of strenuous work which resulted in the meagre list of warblers and chats already mentioned.

But on these days nothing mattered, it was enough to be alive. Even the birds seemed to be making the most of the short spell of summer weather. Curlew bubbled, and redshank yodelled almost as if it were spring. From my rather limited experience it seems to me that some of the waders have an autumn song period as do robins and some warblers and finches. Larks filled the sky with melody, linnets trilled, and swallows twittered as they swung past the Head. At dawn on the 14th a solitary redstart flew into the hut, and we felt that real movement had begun. It was really too hot to be energetic, so I sat by the flag-staff all the afternoon dreaming. Suddenly, about 4.30, I became conscious that the air was full of the rush of wings. From end to end the island was alive with swallows and black-headed gulls. Both species were playing round the sand-hills, white and black curiously blended. The swallows twittered merrily, and the gulls chattered; they seemed to be merely amusing themselves. I could not see that they were catching insects, nor could I detect any insect life in the air. By 6 p.m. most of the swallows had cleared off, but the gulls remained playing round the hills while the sky changed from blue to mauve and faded to grey, and twilight fell. Then the gulls round the Head began to soar very slowly, circling round each other in ever widening rings. Soon those from the middle of the island joined them, and thus gradually they all mounted into the sky. Ultimately they were so high that I had to lie on my back and watch them through binoculars, as they were invisible to the naked eye. Gradually they spread out and flew steadily westwards away into the daffodil sky, high above the setting sun, and there I lost them. It took them thirty-five minutes to mount spirally upwards before they turned west. Meanwhile a few swallows and one

BIRD WATCHING ON SCOLT HEAD

solitary house-martin still played round the Head. Several swifts and yellow wagtails passed ; two tree-pipits and a carrier pigeon alighted on the hut. Small parties of curlew, uttering their travelling cry, and a number of lapwings passed westwards.

A similar influx of black-headed gulls occurred on September 30th. Up to 5 p.m. the wind was from the S.S.W., when it again suddenly veered to the east. The gulls appeared about 11 a.m., and were constantly on the wing till dusk ; until the evening I never saw them rest. All day long there was this constant whirling of countless wings, the island seemed to be one vast snowdrift. The only visible insects were winged red ants, which caused us much discomfort all day. The gulls were feeding on these, hawking for them on the wing. By 6 p.m. the tide had risen and covered the mud flats ; then at last the gulls rested. Some settled on the sea and some on the bights. Westwards the water was red gold under the setting sun. Right out to the harbour-bar gulls were floating on the golden water ; gradually the far beach became covered with them. My last glimpse of the gulls was as they stood in serrated rows on the horizon—thousands of them now merely black shadows in the dusk. There were very few immature birds in this second visitation. The next day not a single black-headed gull was visible. As October advanced hundreds of gulls of various kinds—common, herring, and great black-backed—came from the uplands at low tide to feed in the creeks. The shore at certain points was a great rendezvous for gulls. There they dozed away their leisure hours sleeping with one eye open, but as soon as anyone appeared within half a mile of them they moved on. The regular order in which a battalion of gulls standing at ease moves slowly ahead of the intruder is interesting and amusing. If you walk quietly towards them, the birds nearest you will flutter along the ground with uplifted wings and rise just high enough to float over the pack, and then alight ahead of it. Then another

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batch from the back will follow suit, and thus in a few minutes the whole battalion has forged ahead without undue haste or loss of dignity. You can never catch up with them, and they may, if shy, all fly away together.

To me the great mystery of migrations reaches its climax in the goldcrest and firecrest. These birds weigh about as much as a sheet of paper and an envelope and measure only two and a quarter inches across the wings. Yet they cross the North Sea and the Mediterranean. At home they merely flit from tree to tree and seem quite incapable of long sustained flight. It seems to me that when the urge to migrate comes upon tiny birds such as these, they are strung up to a fine effort just as human beings are strung up in times of stress, and are thus able to accomplish the otherwise impossible.

Whereas goldcrests often migrate in hordes, firecrests are rare though regular stragglers to our shore. On October 31st, while three of us were sitting near my tent by the Ternery, a solitary firecrest flew in from the sea, flattened itself for a moment against one of the hurdles, then dropped into the marrams. Knowing how easily exhausted goldcrests are caught, we ran to the spot, but the bird flew some distance and then hid again. We flushed it several times, but each time it flew away without showing any signs of fatigue :—

Here was this atom in full breath
Hurling defiance at vast death,
This scrap of valour just for play
Fronts the rough wind in waistcoat grey.

Of course it does not migrate 'just for play,' but why goldcrests and firecrests should undertake such a long and perilous journey when suitable winter quarters could be found nearer and oftentimes in their breeding haunts, one would have to *be* a bird to know.

As already stated, we considered the black redstart to be our mascot.

BIRD WATCHING ON SCOLT HEAD

It is a late migrant, arriving about the end of October or the beginning of November. It is a friendly bird and throughout its stay flits to and fro between the hut and the water tank, or suns itself on the south side of the hill. It sleeps in the porch, or under the mushroom cap of the chimney. Each October one has greeted me. On my last visit, October 30th, 1927, I said to Chesney—'Have you got a black redstart to greet me?' 'No, not yet,' he answered. But as we mounted the steps to the hut in the darkening afternoon a dusky bird alighted on the roof. It was our mascot, and it stayed till the night before I left a week later. In 1924 one frequented my look-out tent by the Ternery for several days. Overy End is also a favourite haunt in late autumn.

I have only seen one robin at Scoln Head, and that was on October 31st, 1926.

Kestrels nested on the mainland and visited the island regularly throughout the season. But several birds passing in October and November were undoubtedly migrants. They also travelled from east to west, beating along the coast and crossing the sea towards the Wash.

Montagu's harriers in the summer, and hen harriers in the autumn and winter visit the island. In the breeding season the Montagu's harrier roused the wrath of all the bird population in its vicinity. I once saw it chased away from the Long Hills by about sixteen sentinel sheld-drakes. It was invariably mobbed by redshank, lapwings, and ringed plover. These harriers were inevitably shot inland each season.

Greenshank were numerous in September, but very few knot and godwit appeared before I left. One or two purple sandpipers stayed for a day or two. It is not exactly the shore for these birds. One very tame purple sandpiper found a pool more or less to its liking close to the old wreck near Overy End and amused itself there for a long time. It was so tame that two of my 'underlings' sat down beside it and made notes.

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On October 7th I saw two small plovers running about with some shore-larks below the hut. The birds all looked about the same size. After very careful stalking these two interlopers turned out to be Kentish plovers. Their black legs and small size easily distinguished them from immature ringed plovers.

Sanderlings abounded along the shore line. Great-crested grebes, gannets, and cormorants constantly passed to and fro along the sea, sometimes going west, but more frequently flying eastward. In 1924 skuas passed daily from August 26th till September 30th. In 1915 I saw none between June 25th, when one arctic skua was chasing a tern, till September 6th when another was teasing a gull. A single skua passed on the 24th, but on the 27th there was a big movement westward, the wind being north. They passed in parties of from six to twenty-four between 11 a.m. and 1.30 p.m., and again later in the afternoon. One pomatorhine skua passed close to me as I sat near the Smuggler's Gap on September 21st. The contrast between the movements of skuas in these two years was interesting. Throughout September 1924, when they arrived singly almost every day, the prevailing wind was S.S.W. In 1925 the June bird, and all the September birds, especially the big influx on the 27th, came in with a north wind, except the pomatorhine, and that came in during a cold S.S.W. gale. Again, on October 14th, two arctics came with a rough north wind.

Mallard, widgeon, and teal were fairly plentiful in September, and when the grey geese began to arrive at the end of the month it was well worth being alive.

On October 2nd, 1925, we started off early across Norton Creek, at low tide, and explored all the south side of the creek to Burnham Overy, returning across Overy Creek to the east end of Scolt Island. This takes about five hours, as it is not a walk that can be hurried because of the many likely places which have to be explored. Short-

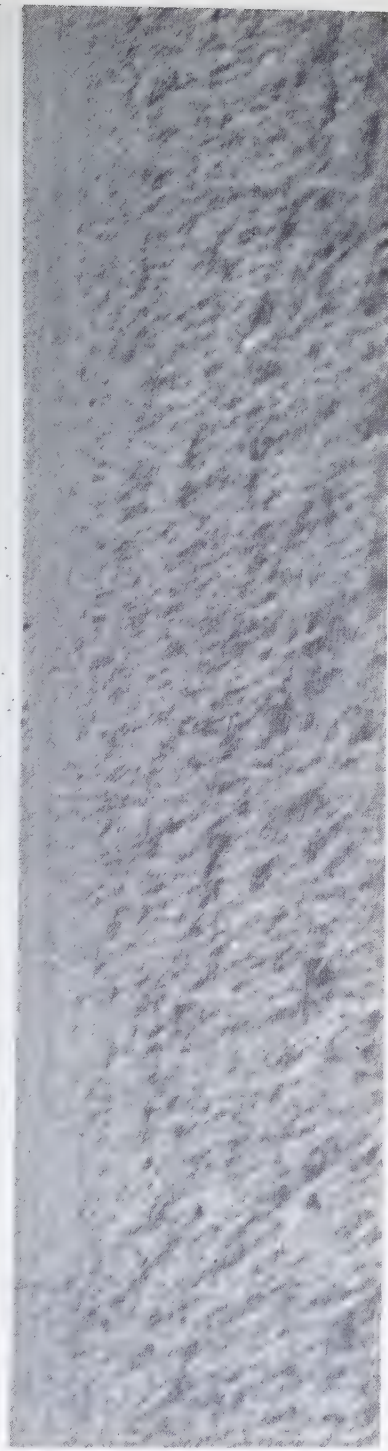
BIRD WATCHING ON SCOLT HEAD

eared owls may be skulking in the rough stuff on the wall ; kingfishers often frequent the creeks, waders paddle about in the mud on either side, and you never know what the gorse bank at Overy may hide. So it is a leisurely walk, and when you have carefully picked your way across the Overy estuary, you find a sheltered corner in the sand-hills and devour a frugal and well-earned lunch. After that there is the return journey along the shore while the incoming tide creeps up, and the westering sun gilds the sea and sands. I was tired that October afternoon, and when my companion called my attention to a little party of birds inshore, I murmured—‘ Only scoters ; tired of scoters.’ However duty compelled me to turn my glasses on them and I suddenly saw that these seven birds had white patches on the nape of the neck. They were surf-scoters. This was the first record of this species for East Anglia. That kind of thrill is wonderfully cheering and makes one forget all about fatigue.

Short-eared owls were frequently put up ‘out of the marrams. Sometimes they were tired and floated slowly before us with noiseless flight like giant moths, and alighted on a tussock of grass. Sometimes they winged their way inland.

Little owls (*Athene noctua*) came in from the sea, often calling to one another as they flew. Whether these little owls merely came from the Lincolnshire coast, or were actually overseas migrants I cannot say. We generally put them up, or saw them coming in, between the Ternery and Smuggler’s Gap. On October 15th and 25th, parties of little owls flew over the hut after dark ; on the latter evening we counted six calling to one another. They came either with a N.N.W. or S.S.W. wind.

The first flocks of starlings came in with an easterly wind on June 10th, 11th, and 13th. On the first two days they flew at a high altitude steadily west. From the 13th till the end of the month there were large



A FLOCK OF STARLINGS



HOODED CROWS

AUTUMN MIGRATION

packs feeding on the marshes. These flocks were mobile. Throughout September small parties frequented the saltings and bushes on House Hills. There was no big rush until September 20th (S.S.W.). Throughout October, no matter from what quarter the wind was blowing, great rushes took place daily. The greatest movement was from east to west ; but on some days flocks came in from the sea and went south all day long. In an easterly wind, generally of course a following wind, the birds flew high up (100-200 ft.) ; in a westerly or head wind, and especially during a gale, they only just topped the hills and dropped to the lowest possible level over the marshes and sea.

Sometimes migration was spread over a wide front, sometimes packs of starlings followed one another so closely that there was scarcely one minute's interval between them. Frequently a dense column extended over a mile in length. They never loitered, but sped towards their goal at top speed and in incredible numbers ; the sound of their wings was like a rushing wind. They resembled countless miniature torpedoes hurled through space. They made the hordes of crows seem hopelessly slow, and the human observers bow their heads at the wonder of it all.

It is of course impossible for the ordinary observer really to measure the rate of flight. According to careful computation by Mr. Meinertzhagen, the average pace of crows is 31-45 m.p.h. and that of starlings 38-49 m.p.h., smaller passerines 20-27 m.p.h. Yet the pace of the starlings *seemed* relatively much greater and at times it must have been so, because certain flocks, sighted as soon as they touched the Overy end of the island and kept in sight till they reached Brancaster Creek, outpaced and passed several flocks of hooded crows and rooks taking the same flight line.

We saw very few carrion crows, but rooks came in with the hooded crows early in October and passed in immense numbers throughout the

BIRD WATCHING ON SCOLT HEAD

month. Sometimes their movements were from east to west, but an almost equal number came in from the sea from north to south, whereas very few hooded crows crossed the sea near Scolt Head.

By far the most impressive sight throughout October 1925 was the passing of the hooded crows. A skein of wild geese, each one keeping station, suddenly appearing out of the void and vanishing into the dim distance, gives one a thrill of delight, but it is so soon over. The impetuous rush of countless hordes of starlings often took one's breath away; but they were exhilarating. The clouds of undulating finches seemed like a cheerful bank holiday crowd. But the steady purposeful flight of the grey crows, day after day and week after week, filled one with awe and wonder. It seemed as if no power on earth could stop them, neither did adverse winds dismay them. Perhaps the mere slowness of their flight produced this impression. I can never think of Scolt Head now, nor look at a picture of the long line of sand-hills, without seeing this slowly advancing army making for its ultimate goal. There was something sinister and remorseless as fate itself in the passing of the grey crow.

During the last three weeks of October hooded crows passed over Scolt Head Island in incredible numbers. Every day they waked me at dawn. Subconsciously I have been aware of them before waking; perhaps the flickering shadows of their wings as they streamed past the open door and windows set in motion some vibrations which reached me; for if the mind is strung up to a high pitch it will respond to the faintest stimulus. So, half awake, I stumbled to the door and scanned the long line of sand-hills. Perhaps only a few crows would be moving, but sometimes they passed the hut in one continuous stream, until you might have thought that the world contained no other bird but the hooded crow. They travelled in parties of from seven to twenty, with short intervals between the parties. In the twilight of dawn they

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loomed dark against the purple sky ; on misty mornings they were but wraiths floating in grey vapour, seen for a moment and then lost in the mist. It was not until the sun rose that you could see the soft dove-grey of their bodies that contrasts so beautifully with the black wings and head. Yet there is something in the grey crow's flight which distinguishes it from the rook ; they look flatter and more compact. As dawn broke you saw the long line of them. They first appeared in sight over the woods four miles eastwards. They were never in a hurry. Slowly and steadily, with long rhythmic beating of the wings they travelled from east to west, keeping almost entirely to the line of the sandhills and so passing directly over the hut in which I lived. There was a majesty about this silent stately progress, for their harsh cries were hushed, they uttered no sound. Hundreds of thousands must have passed me in those three weeks, for although on most days the greater movement was between dawn and 10 a.m., yet sometimes migration continued from dawn to dusk. Apparently the great influx in 1925 was above the average, for the fishermen said they had never seen such numbers. Whence they came, and whither were they going ? Ultimately they must turn southwards. If one could but see the start and the finish and know who marshals the forces and who gives the order of their going. Sometimes they dropped down on the ploughlands to feed. I saw acres of ground covered with them one morning at 10 a.m., but there were none left when I returned at noon. Some few fell out of the ranks and remained on the island. They fed on the tide line and on the saltings. They carried mussels and other bivalves, whelks, and small crustaceans to a height and dropped them on the pebbles to break the shells. They rid the saltings of dead and decayed rabbits. One I saw feeding daintily on something which I could not at first determine, but ultimately found to be a sand eel. The crow was picking minute shreds from this fish and became wholly absorbed

BIRD WATCHING ON SCOLT HEAD

in the process. By and bye another grey crow sidled up to see what was going on ; the first bird picked up the remains of the shining fish and stood in a defiant attitude with several inches of eel hanging from his bill, so that he looked like a crow with a curlew's bill. The second bird stalked away, being apparently in no mood for a fight. The remaining crow bent down his head, put one foot on the tail of the sand eel, drew it forth once more and gradually despatched it in the orthodox way, for no well-conducted passerine bird bolts its food.

The nightingale and the skylark, the cuckoo and the robin, and various other darlings of the poets have all been immortalised in song and verse, but the grey crow has no lover. Yet he is handsome enough to deserve a sonnet, wise enough to merit an ode and, unlike some wise folks, he possesses a sense of humour. True, his idea of fun is crude and childlike, for it consists chiefly in stalking gulls, listening to their chatter and making jeering remarks of his own. Or he pulls their tails when they are not looking, and generally contrives to throw the blame elsewhere. He makes even the great black-backed gull fear and respect him and cover her young if his shadow but crosses her path. Seven grey crows once made me bestir myself. I was marooned on a small islet in Lock Scadavar waiting to be picked up ; a steady drizzling mist had put an end to photography, so rolling myself up in my cloak I fell asleep. A sensation of something sinister awoke me, and on opening my eyes I saw the seven birds hovering just above my head. Seven pairs of steely eyes were considering me, and seven strong beaks pointing downwards 'greedy for their prey.' I soon let them know I was very much alive, and they made off.

We welcome the singing birds because they bring with them a promise of summer. The grey crow is a harbinger of winter, and as such he brings no joy.

Geese were always exciting. Long before they came into view we

A SKEIN OF GEESE





"OUT OF THE VOID"

AUTUMN MIGRATION

heard their cries, and each one of us would jump up and say 'Where are they?' Sometimes nothing was visible but a dark chevron silhouetted against the sky. At times they just topped the sand-hills. In 1924 they began to come in on October 11th. I left on the 15th. The last night I spent alone. All the day had been devoted to packing and tidying up the hut. About 3 p.m. a sudden sea mist enshrouded everything. I was outside nailing up packing cases, and unfortunately one contained my camera. There had been unbroken quiet, the silence of a still October afternoon. All at once the air was vibrant with the cries of geese. They seemed to have come out of the void, and the sound of them was like hounds in full cry. There were geese circling all round me just overhead, but quite invisible. In a moment, with the sudden on-coming of fog, they had lost their sense of direction. The fog lifted almost as rapidly as it had descended, and then I saw the geese, big skeins of them, mostly pink-footed. They shot up into the sky, formed chevrons, and made for Holkham. But still fresh skeins came in from the west, some only just topping the hut so that I saw their pink feet distinctly against the pearly whiteness of their bodies when they banked and sheered away from me. Others as they flashed past were aglow, for the westering sun diffused them with pink as they wheeled and turned eastwards. I sat on my packed camera enthralled, and only afterwards regretted my inability to use it. It was a good finish up for my first year.

One of the last nights spent on the island in 1925 will always be impressed on my memory. It was a perfectly still moonlight night. Two of us stood in silent awe by the flagstaff at 10 p.m. There was a constant stream of redwings overhead. The whole area was bathed in moonlight, the sea showed scarcely any movement, the bights flooded by the spring tides lay like giant mirrors below us. Never have I felt so absolutely isolated and aloof from the world. There was complete

BIRD WATCHING ON SCOLT HEAD

silence but for the faint travelling cry of the redwings. There may have been big flocks high up, but the cries we heard came from single isolated birds just overhead. The birds themselves were invisible, and this deepened the feeling of awe and mystery. They came out of the void from somewhere overseas, and their cries trailed away into the purple night as the birds flew towards their ultimate goal. My companion broke the silence by exclaiming, 'If I wanted to migrate I would choose such a night as this.' But such nights are rare in November. We know that the modern airman is hopelessly lost in a pitch black night unless his compass is fitted with a gyroscopic turn-indicator. This tells him when he has turned, as otherwise he does not know whether he is on a level keel or upside down, or in fact what his actual position is with regard either to direction or actual position. Generally speaking, however, fog makes flying impossible. How then do birds find their way? 'What lamp has destiny to guide her little children stumbling in the dark?'

Of course we see only the fringe of migration. We speak of seasons when 'migration is poor,' but it goes on all the time, though weather conditions render it invisible to us. I have stood outside the hut and heard birds passing high overhead on fine nights from twilight till nearly dawn. Often big banks of white clouds emphasize the deep purple of the velvety sky. Sometimes Charles's Wain hangs tilted over the Head, apparently so low down that it seems as if by merely running up the hill one could hang on to the nearest star, swing out into space and join these hordes of migrating birds. If one only could!

When spring returns, what becomes of these myriads of diurnal migrants which pass in the autumn? Except robins and hooded crows, the few which we see are still journeying from east to west. Is it that the great bulk of migrants does not return by the same route in the spring?

'Ah whence, and whither flown again—who knows?'

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